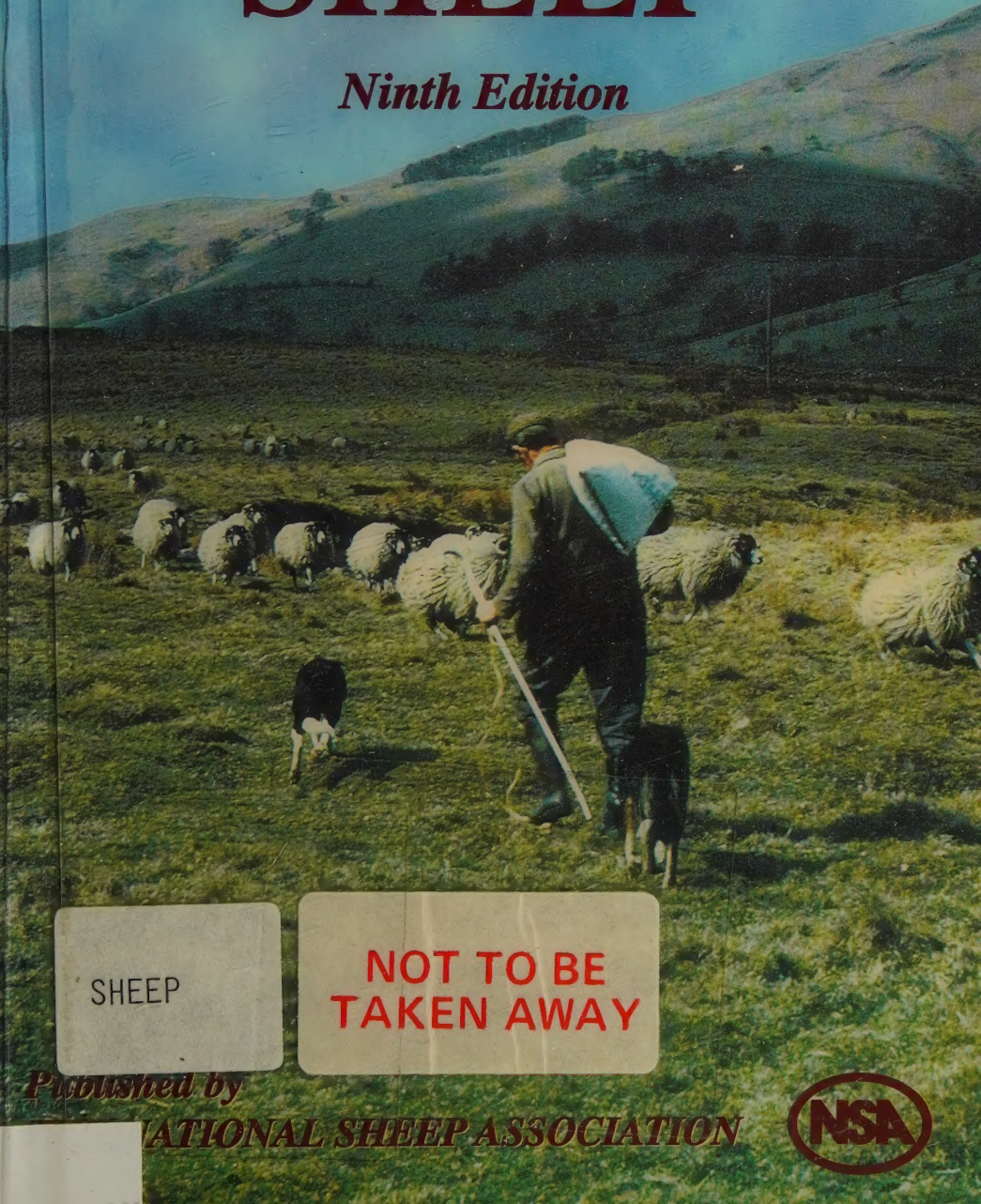


BRITISH SHEEP

Ninth Edition



SHEEP

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Published by

NATIONAL SHEEP ASSOCIATION





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BRITISH SHEEP

Published by
National Sheep Association



July 1998

Ninth Edition

Acknowledgement

The National Sheep Association would like to acknowledge the invaluable contributions of the many individuals, breed societies, companies and organisations involved in the production of this book.

In particular, we would like to thank Barclays Bank PLC, BOCM Pauls, Honda and Pfizer Animal Health for their generous sponsorship which has enabled us to make this Ninth Edition of British Sheep the first to be printed in full colour.

We are also grateful to John Duncan, who worked so hard on the typesetting of this book and unfortunately died shortly before it could be published.

Preface

The 9th edition of *British Sheep* is primarily a handbook describing the characteristics of pure breeds of sheep and some traditional cross-breeds in the UK. It includes an up-to-date compendium of the breeds found in the UK today. *British Sheep* also contains a wide range of valuable information about the Sheep Industry, in addition to statistical data.

The history of the sheep, which was originally a desert animal can be traced back to biblical times, they formed the basis of trade in Mediaeval Britain providing wool and meat, which are now traded on world markets. Sheep's milk is also becoming an increasingly important product in the United Kingdom. It is mainly used for making cheese, yogurt and specialist ice-cream. Sheep are an integral part of our natural environment. They have the ability to exist in the harsh mountainous regions of the UK, and as a result provide essential work and income to support rural communities in remote areas. They have grazed over countryside for generations enriching the soil and preserving the habitats of wildlife and plants. Sheep continue to be farmed extensively, they are able to utilise resources which might otherwise be wasted.

Professor Sir Colin Spedding, during his closing speech at the 4th World Sheep and Wool Congress, held at Malvern, Worcs, in 1995 stressed that sheep need to be considered as integral to farming systems and rural life, rather than just generators of products with a monetary value. Sheep interact with the environment and have nutritional implications whilst serving social, religious and economic roles.

During the 18th century Robert Bakewell was one of the pioneers of breeding to improve heritable traits within a breed to create his Dishley sheep, and his work led to the establishment of numerous distinct new breeds during the 19th century, which established Britain as the major source of pedigree stock worldwide. Since the 1970's there has been an influx of sheep breeds from outside the UK which have been beneficial to the Sheep Industry. The UK now has the broadest genetic base of breeds of any country in the world with 86 recognised types.

I hope that this book will help those sheep farmers who wish to adjust their breed policy, and others who are creating new flocks, and seeking guidance on suitable breeds, crosses and systems. For the student the *British Sheep* book provides factual data and contact addresses and for the overseas visitor and others interested in the countryside, I hope that it will act as a guide to the complexities of the UK Sheep Industry.

I wish to thank our sponsors (Barclays Bank plc, BOCM Pauls, Honda and Pfizer Animal Health) and the various contributors for their support. Without their help it would not be possible to produce this comprehensive 9th Edition of *British Sheep*

Joe Stoddart
President
June 1998





What our managers wear to work.

At Barclays, we pride ourselves in the fact that we look after more farmers' interests than any other bank.

So if you were to take a look into any of our Agricultural Managers' car boots, you'd more than likely unearth a pair of rather well-used size tens.

This is because we encourage our Agricultural Managers to get out and about (and up to their calves in it if necessary).

After all, if we're going to help your business we have to understand it and all its special needs first.

So if you'd like to discuss your farming business and its financial requirements, simply give one of our Regional Agricultural Specialists a call. He'll be more than happy to put his boots on. (Not to mention his skates.)



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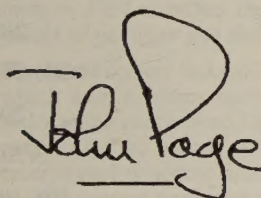
BRUCE HAMMOND (EXETER) 01392 490 406. MARTIN REDFEARN (CAMBRIDGE) 01223 545 533.
 DAVID OLIVER (NEWCASTLE UPON TYNE) 0191 200 2085. TONY TRICKETT (SHREWSBURY) 01743 843 105. RICHARD WATERS (BANBURY) 01295 273 626.
 JOHN GLYN JONES (CARDIFF) 01222 426 426. JULIAN TATAM (HAYWARDS HEATH) 01273 471 711. DAVID BATES (DONCASTER) 01302 346 115.
 JOHN PAGE (LONDON) 0171 621 4001. DAVID NEAL SMITH (LONDON) 0171 621 4002. DUNCAN HOMAN (BRISTOL) 0117 948 3355.

Foreword

The work of the National Sheep Association reminds us all just how important sheep production is in Britain. For much of our farmed land the sheep is the main or perhaps the only profitable enterprise. It is also important to realise that the way in which sheep are produced are varied and the markets to which their meat and wool are sold have varying requirements. In adapting to local climatic conditions and meeting market requirements the first essential criteria is the correct choice of breed.

When the British Sheep book was first published by the NSA, it represented the first time the wide range of British and imported sheep breeds used in the United Kingdom had been fully described in one publication. This new edition, with its improvements, will now replace its predecessors as the essential reference for anyone concerned with the sheep industry, the breeds we use and the way in which they are adapted to our variety of environments and the range of production systems we use.

In our increasingly competitive world, with the agricultural and food industries have less and less protection, it is important that the sheep sector of our agricultural economy continues to become more efficient in both its production and marketing. One of the means by which we can ensure this happens is to maintain good information flows to the industry. The NSA has always carried out this role effectively in the sheep sector. At Barclays we are very pleased to be associated with this new issue of British Sheep and to be able to support its publication. We hope it will be useful to the industry in meeting the new challenges of the market place.



John Page
Head of Agriculture
Barclays Bank Plc



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Contents

	page
Preface	3
Foreword	5
National Sheep Association — June 1998	7
Breed Society Names and Addresses	10-16
Pure Breed Descriptions	17-171
Cross Breed Descriptions	172-191
Wool and the 'Bradford Count'	192
British Wool Characteristics	193-195
British Wool Marketing Board	196-200
Sheep Shearing	201
World Sheep Populations	202
UK Sheep Population	203
World Wool Production	203
Meat and Livestock Commission	204-205
European Union Sheep Numbers	206
Sheep Production in the European Union	207
Rare Breeds Survival Trust	208-210
Sheep and Goat Health Schemes	212
Preparation of Sheep for Breeding	214-217
Artificial Breeding and the British Sheep Industry	218-219
New Methods for Controlling Scrapie	220-221
George Hedley Award	222-224
ATV's — The Biggest Thing in Sheepfarming Since the Collie?	225
National Association of Agricultural Contractors	226
Sire Referencing Schemes	228-229
Traditional Sheep Terms	230
Some Important Addresses	232-235
Barclays Bank Plc Agricultural Services	236
NSA Sheep Farmers Charter	237
Glossary of Sheep Terms	238-239

National Sheep Association

Office Bearers: June 1998

President

Mr J Stoddart

Chairman of Council

Mr D Raine

Treasurer

Mr G Davies

Chief Executive and Secretary

Mr J Thorley

Registered office

The Sheep Centre, Malvern, Worcestershire WR13 6PH

Tel: 01684 892661 Fax: 01684 892663

E-mail: @nationalsheep.demon.co.uk

History

The National Sheep Association was founded in 1892. It has been dedicated to representing the interests of its members and serving the sheep industry as a whole ever since. The origins of the Association hark back to the 1890's and the pedigree sheep breed societies which were at that time beginning to come into being. The founders of these societies felt that an organisation was needed to develop a forum for progressive breeders to discuss their respective views and to improve the breeding and management of sheep. In addition, and of paramount importance, the National Sheep Breeders Association, as it was then called, was needed to provide a strong and common voice for the industry.

Over the next 70 years the Association took on a broader role and its title changed to its present form in 1969 to reflect the more comprehensive work of the organisation, involved as it is on behalf of pedigree and non-pedigree producers in all aspects of the sheep sector.

The breed society links still exist, with each society supporting the NSA by way of an affiliation which entitles them each to representation on the NSA Council, its governing body. The Association receives no Government funding or levies on meat or wool, relying instead almost entirely on the annual subscription of its sheep farmer based membership. It does, however, receive very welcome financial support from commercial concerns which work within the industry and support particular projects, as the sponsorship of this publication demonstrates.

The NSA is based at the Sheep Centre, Malvern where it owns its offices and a range of converted farm buildings. The Chief Executive is assisted by seven other members of staff and a further eight regional secretaries around the UK.

The Role of NSA

The remit of the Association is to promote and represent the sheep industry in a general sense to others. This involves the promotion of sheep and their products to the agricultural industry and to an increasing degree, the general public, whilst also ensuring that the appropriate political authorities in the United Kingdom, Europe and around the World understand the views and predicaments of the British sheep farmer. This brings NSA into regular contact with Government Agricultural officials and departments around the UK, the Department of the Environment, Transport and the Regions, each of the farming unions, the Meat and Livestock Commission, MPs, MEPs, and European Commission officials, and a growing number of environment and welfare based pressure groups.

NSA Council and Committee Structure

The governing body of the Association is known as the Council — with nominated representatives from across the industry. The Council has an Executive Board, with full delegated powers to act on its behalf, it consists mainly of Regional Chairmen and Vice-Chairmen. To react to the variety of detailed issues now facing the industry, the Association also has a number of spe-

cialised committees, and made up of members and specialists with knowledge of the specific subject areas. These report back to Council or Executive as appropriate to keep them informed on various issues.

Regional Committees

The UK is divided into eight regions, each with its own functioning committee (see figure 1). Each region has a structure consisting of a Chairman and Vice-Chairman who are elected by the membership within the region. These are supported by a regional committee which draws its members from sheep farmers, breed societies and other organisations with an involvement in sheep farming within the region. The committees are each served by a Regional Secretary who also liaises with the national headquarters. They each hold regular meetings to discuss policy and matters affecting the industry in the region. The views and opinions from the region are then conveyed to the Council and Executive to influence NSA policy.



Figure 1. NSA Regional Structure

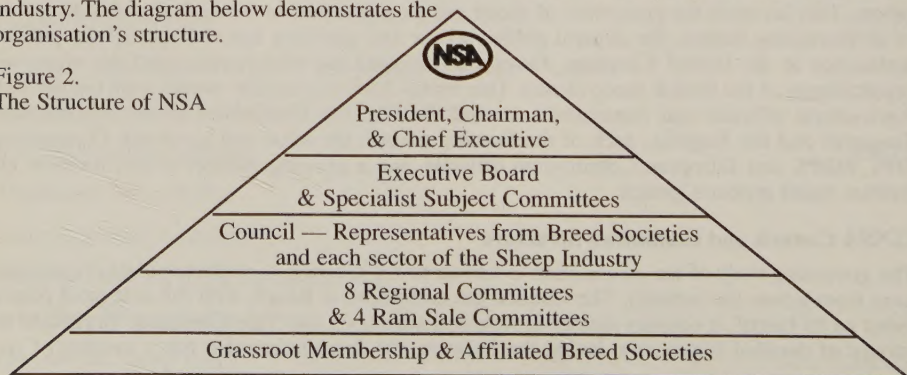
Events and Conferences

The Association, both regionally and nationally, is very active in arranging evening meetings, conferences, technical events and farm walks. The purpose of these is to create interest in the sheep industry and to disseminate information to producers. Many regions also hold specialist open days on farms of interest in the region, the largest of which attracting up to 10,000 visitors who are primarily sheep farmers looking to gain information from the gathering of trade stands, advisory bodies or breed societies. They help to alert farmers to the new techniques available and frequently show them in a practical working situation.

These activities provide NSA with important contact with its grass root membership, which is vital, in order for it truly represent the views of the industry. The diagram below demonstrates the organisation's structure.

Figure 2.

The Structure of NSA



❑ National Shows

The NSA organises Sheep Technical Centres at three major agricultural shows, the Royal Highland, the Royal and the Royal Welsh and is one of three organisations involved in the biennial 'Sheep' event at Malvern. These centres bring together different aspects of the industry for visitors to find information of interest to their sheep business. They include live exhibits from breed societies, facets of new technology and sheep health, fleece competitions and other details on a variety of sheep matters whilst providing a suitable meeting point for sheep farmers. In addition to this list of events, NSA regions ensure the Association is represented at a number of regional and local events around the UK. Again there is an opportunity for NSA to meet its membership and for the individual to voice his or her views.

❑ Ram Sales

The Association holds five major multi-breed, ram sales throughout the UK, each organised by its own working committee. The NSA Wales and Border Region September Ram Sale began in 1978. This is the largest ram sale of its kind in Europe, peaking at an entry of over 10,000 rams in the mid-1990s. In 1989 an early sale was started at the same Royal Welsh Showground venue for buyers seeking rams for tupping earlier in the season. The NSA Eastern Region Sale started in 1984 and is a well established event in its area. The same can be said for the South West Region Ram Sale, started in 1988, held in Exeter, the sale attracts vendors and buyers from the length and breadth of the region. Finally, the NSA Northern Ireland Region Ram Sale held its first sale in Antrim in 1989 providing a worthy service for producers in the region.

The purpose of these sales is to offer prospective buyers the chance to purchase quality rams which have undergone a basic inspection by an NSA panel. Many of the sales also now include official breed society sales for a variety of breeds.

❑ NSA Carcase Units

These mobile display units are used by many agricultural societies as part of their carcase competitions or demonstrations. They provide a facility in which to hang dressed carcasses, which demonstrate to producers the desired levels of fatness and conformation sought by today's consumer.

❑ The 'Sheep Farmer'

The only dedicated technical journal for sheep producers, published bi-monthly, it is available to NSA members only, as part of the package of membership benefits. It features information on every facet of the sheep industry with regular sections covering marketing, European matters, health and nutrition. In addition to the regular issues, a number of supplements are also published focusing on specific sheep farming matters.

❑ Other NSA Publications

The NSA publishes a range of literature designed to provide information on the industry to anyone who seeks it. Full details can be obtained from the NSA Head Office at Malvern.

Names and Addresses of Breed Societies and Secretaries

Index to
Description
Page

- 18 **BADGER FACE WELSH MOUNTAIN**
Badger Face Welsh Mountain Sheep Society, Mrs M Pritchard, Hafan, Tynlon,
Tregarth, Bangor, Gwynedd LL57 4BB.
Tel: 01248 601380. Publicity Officer: Philipa Ball. Tel: 01584 881244
- 20 **BALWEN WELSH MOUNTAIN**
Balwen Welsh Mountain Sheep Society, Mrs S Jones, Brynhaelog, Salem,
Llandeilo, Carmarthenshire SA19 7LP.
Tel: 01558 822652
- 22 **BELTEX**
Beltex Sheep Society, Miss H Ashton, Lawns Farm, Orrell, Wigan, Lancashire
WN5 8UH.
Tel: 01695 627626
- 24 **BERRICHON DU CHER**
British Berrichon du Cher Sheep Society Ltd, Mrs S Drury, The Lodge, Sutton
Bassett, Market Harborough, Leicestershire LE16 8HL.
Tel: 01858 462427
- 26 **BEULAH SPECKLED FACE**
Eppynt Hill & Beulah Speckled Face Sheep Society, D J Jones, c/o Russell
Baldwin & Bright (Markets), 6 Market Street, Builth Wells, Powys LD2 3AG.
Tel: 01982 553614
- 28 **BLACKFACE**
Blackface Sheep Breeders Association, Miss A Fenton, Royal British House,
Leonard Street, Perth PH2 8HA.
Tel: 01738 449430. Fax: 01738 449431
- 30 **BLACK WELSH MOUNTAIN**
Black Welsh Mountain Sheep Breeders Association, Mr D J Parker, Touchstone,
3 Quarry Cottages, Bourton-on-the-Hill, Moreton in Marsh, Glos GL56 9AJ.
Tel: 01386 701538. Fax: 01386 701383
- 32 **BLEU DU MAINE**
British Bleu du Maine Sheep Society.
Jane Smith, Fayre Oaks, Trostrey, Usk, Gwent NP5 1LA.
Tel: 01291 673816. Fax: 01291 673889
- 34 **BLUEFACED LEICESTER**
Bluefaced Leicester Sheep Breeders Association, Mrs F Sloan, Kirkbeck,
Clarencefield, Dumfries DG1 4NY.
Tel: 01387 870671
- 36 **BORDER LEICESTER**
The Society of Border Leicester Sheep Breeders, C E Douglas, 3F2, 4 Alexander
Drive, Edinburgh EH11 2RH.
Tel: 0131-313 5037 (Home)
- 38 **BORERAY**
c/o Rare Breeds Survival Trust, 4th Street, NAC, Stoneleigh Park, Kenilworth,
Warwickshire CV8 2LZ.
Tel: 01203 696551

Index to
Description
Page

- 40 **BRECKNOCK HILL CHEVIOT**
Brecknock Hill Cheviot Sheep Society, P Francis, 13 Lion Street, Brecon,
Powys LD3 7HY.
Tel: 01874 622488
- 42 **BRITISH INRA 401**
British INRA 401 Sheep Society, Mr G F Burrough, Sheldon Grange,
Dunkeswell, Honiton, Devon EX14 0RW.
Tel: 01823 680565
- 44 **BRITISH MILKSHEEP**
British Milksheep Society, Mrs C Parsons, The Row, Rowelton, Carlisle,
Cumbria CA6 6LX.
Tel: 01697 748217
- 46 **CAMBRIDGE**
Cambridge Sheep Society, A Davies, Pharm House, Neston Road, Willaston,
South Wirral L64 2TF.
Tel: 0151-794 6103 (Office)/0151-327 5699 (Home)
- 48 **CASTLEMILK MOORIT**
Castlemilk Moorit Sheep Society, J Sanders, Creacombemoor Cottage, Rackenford,
Tiverton, Devon EX16 8EN.
Tel: 01884 881222
- 50 **CHARMOISE**
Charmoise Sheep Society, G Moulden, 1 Crown Square, Denbigh, Clwyd LL16 3AA.
Tel: 01745 815553
- 52 **CHAROLLAIS**
British Charollais Sheep Society, Mrs C Barber, Youngmans Road, Wymondham,
Norfolk NR18 0RR.
Tel: 01953 603335
- 54 **CHEVIOT**
Cheviot Sheep Society, Mrs I McVittie, Holm Cottage, Langholm, Dumfries &
Galloway DG13 0JP.
Tel: 01387 380222
- 56 **CLUN FOREST**
Clun Forest Sheep Breeders Society Ltd, D Uffold, McCartney Morris & Barker,
25 Corve Street, Ludlow, Shropshire SY8 1DA.
Tel: 01584 872251
- 58 **COLBRED**
Colbred Sheep Society, A O Colburn, Crickley Barrow, Northleach, Cheltenham,
Gloucestershire GL54 3QA.
Tel: 01451 60330
- 60 **COTENTIN**
Cotentin Sheep Society, F C Culley, 33 Eden Grange, Little Corby, Carlisle,
Cumbria CA4 8QW.
Tel: 01228 562908
- 62 **COTSWOLD**
Cotswold Sheep Society, Mrs L Gibbings BA, Holy Brook Cottage, Far Oakridge,
Stroud, Gloucestershire GL6 7PG.
Tel: 01285 760455
- 64 **DALESBRED**
Dalesbred Sheep Breeders Association Ltd, H Whitaker, Gib Hey Cottage,
Chipping, Nr Preston, Lancashire PR3 2WU.
Tel: 01995 61570.

Index to
Description
Page

- 66 **DERBYSHIRE GRITSTONE**
Derbyshire Gritstone Sheep Breeders Society, J Naylor, Mount Pleasant Farm,
Haslingden Old Road, Oswaldtwistle, Accrington, Lancashire BB5 3SN.
Tel: 01706 216705
- 68 **DEVON CLOSEWOOL**
Devon Closewool Sheep Breeders Society, R F Y Smith, c/o Holton & Thomas,
The Elms Office, Bishops Tawton, Barnstaple, North Devon EX32 0EJ.
Tel: 01271 326900
- 70 **DEVON AND CORNWALL LONGWOOL**
Devon and Cornwall Longwool Association, Miss M Cory, Beckavens, Jacobstow,
Bude, Cornwall EX23 0BL.
Tel: 01840 230329
- 72 **DORSET DOWN**
Dorset Down Sheep Breeders Association, Mrs June Pither, Greenway Farm,
Bishops Lydeard, Taunton, Somerset TA4 3DD.
Tel: 01823 432301
- 74 **DORSET HORN & POLL DORSET**
Dorset Horn & Poll Dorset Sheep Breeders Association, Mrs F Elder, Agriculture
House, Acland Road, Dorchester, Dorset DT1 1EF.
Tel/Fax: 01305 262126 (Office hours)
- 76 **EST A LAINE MERINO**
Est à Laine Merino Sheep Society, Mrs C Barber, The Merino Centre,
Wymondham, Norfolk NR18 0RR
Tel: 01953 607860
- 78 **EXMOOR HORN**
Exmoor Horn Sheep Breeders Society, Mrs H Leeves, Selworthy Farm, Selworthy,
Minehead, Somerset TA24 8TL
Tel: 01643 862577
- 80 **FRIESLAND**
The British Friesland Sheep Society, Mrs B Tavernor, Fouts Cross Farm,
Seavington St Michael, Ilminster, Somerset TA19 0QA.
Tel: 01460 240313
- 82 **GOTLAND**
British Gotland Sheep Society, Mrs M Woodhead, Parks Farm, Morchard Bishop,
Creditor, Devon EX17 6NW.
Tel: 01363 877616
- 84 **GREYFACE DARTMOOR**
Dartmoor Sheep Breeders Association Ltd, W Mitchell, The Old Rectory,
Clannabrough, Creditor, Devon EX17 6DA
Tel: 01363 84256
- 86 **HAMPSHIRE DOWN**
Hampshire Down Sheep Breeders Association, R Davis, Rickyard Cottage,
Denner Hill, Great Missenden, Buckinghamshire HP16 0HZ
Tel: 01494 488388
- 88 **HEBRIDEAN**
Hebridean Sheep Society, E Medway, Knox Mill, Knox Mill Lane,
Harrogate, North Yorkshire HG3 2AE
Tel: 01423 507741
- 90 **HERDWICK**
Herdwick Sheep Breeders Association, G F Brown, White Keld Barn, Ullock
Workington, Cumbria CA14 4RJ
Tel: 01946 862382

Index to
Description
Page

- 92 **HILL RADNOR**
Hill Radnor Flock Book Society, J Lewis, 16 Ship Street, Brecon, Powys LD3 9AD
Tel: 01874 623200. Fax: 01874 623131
- 94 **ICELANDIC**
British Icelandic Sheep Breeders Group, Mrs Mary Castell, Ramsden Heath
Farm, Witney Road, Ramsden, Chipping Norton, Oxfordshire OX7 3AS.
Tel: 01993 868704
- 96 **ILE DE FRANCE**
Ile de France Sheep Society, Mr John Freeman, Nutwell Farm, Raddington,
Taunton, Somerset TA4 2QQ.
Tel/Fax: 01984 623399
- 98 **JACOB**
Jacob Sheep Society, Mrs Valerie Hunt, 120 Churchill Drive, Ruddington,
Nottinghamshire NG11 6DG.
Tel: 01159 845669
- 100 **KERRY HILL**
Kerry Hill Flock Book Society, Mrs P Chilman, The Bramleys, Broadheath,
Presteigne, Powys LD8 2HG.
Tel: 01544 267353
- 102 **LEICESTER LONGWOOL**
Leicester Longwool Sheep Breeders Association, Mrs L Rushworth, The Showground,
Kelleythorpe, Driffield, East Yorkshire YO25 9DN
Tel: 01377 257494
- 104 **LINCOLN LONGWOOL**
Lincoln Longwool Sheep Breeders Association, J Skehel, Lincolnshire Showground,
Grange-de-Lings, Lincolnshire LN2 2NA.
Tel: 01522 511395
- 106 **LLANWENOG**
Llanwenog Sheep Society, G Holtom/Miss J King, Waunlas, Taliaris, Llandeilo,
Dyfed SA19 7DF.
Tel: 01558 685576
- 108 **LLEYN**
Lleyn Sheep Society, Mrs G Roberts, Gwyndy, Sarn, Pwllheli, Gwynedd LL53 8ET.
Tel: 01758 730357
- 110 **LONK**
Lonk Sheep Breeders Association, Mrs J Shorrock, 51 Glen View Road, Burnley,
Lancashire BB11 2QW
Tel: 01282 433047
- 112 **MANX LOGHTAN**
Manx Loghtan Sheep Breeders Group, Mrs J Gotting, Dairy Barn, North
Houghton, Stockbridge, Hampshire SO20 6LF.
Tel: 01264 810274
- 114 **MEATLINC**
Meatlinc Sheep Co Ltd, H R Fell, Church House, Horkstow, Barton on Humber,
South Humberside DN18 6BG
Tel: 01652 618329 or 618564
- 116 **NORFOLK HORN**
Norfolk Horn Breeders Group, Mrs K E Long, Park Farm, The Old Rectory,
Anmer, Kings Lynn, Norfolk PE31 6RN
Tel: 01485 600824

Index to
Description
Page

- 118 **NORTH COUNTRY CHEVIOT**
North Country Cheviot Sheep Society, W M Morrison, 16 St Vincent Road, Rain,
Ross-shire IV19 1JR.
Tel: 01862 894014
- 120 **NORTH RONALDSAY**
c/o Rare Breeds Survival Trust, 4th Street, Stoneleigh Park, Kenilworth,
Warwickshire CV8 2LZ.
Tel: 01203 696551
- 122 **OXFORD DOWN**
Oxford Down Sheep Breeders Association, J Stephenson, 4 Brookfield,
Hampsthwaite, Harrogate, North Yorkshire HG3 2EF.
Tel: 01423 770736
- 124 **PORTLAND**
Portland Sheep Breeders Group, Mrs Michelle Jones, Hogchester Farm, Wootton
Fitzpaine, Near Charmouth, Dorset DT6 6BY.
Tel: 01297 561072
- 126 **ROMNEY**
Romney Sheep Breeders Society, D Roberts, Geneva, School Road, St Mary in
the Marsh, Romney Marsh, Kent TN29 0DG.
Tel: 01797 363839
- 128 **ROUGE DE L'OUEST**
British Rouge de l'Ouest Sheep Society Ltd, Mrs E J Hird, Yockenthwaite,
Buckden, Skipton, North Yorkshire BD23 5JH.
Tel: 01756 760373
- 130 **ROUGH FELL**
Rough Fell Sheep Breeders Association, Mrs P Tyson, Weasdale Farm, Newbiggin
on Lune, Kirkby Stephen, Cumbria CA17 4LY
Tel: 01539 623238
- 132 **ROUSSIN**
Roussin Sheep Society, A Wright, Halfacre, The Park, Thornhill, Dumfriesshire
DG3 5JT.
Tel: 01848 331640
- 134 **RYELAND**
Ryeland Flock Book Society Ltd, Mrs A Turner, Coughton Cross Farm, Coughton,
Alcester, Warwickshire B49 5HL.
Tel: 01789 762588
- 136 **SHETLAND**
Shetland Flock Book Society, J A Johnson, Fairview, Vidlin, Shetland ZE2 9QB.
Tel: 01806 577227
- 138 **SHROPSHIRE**
Shropshire Sheep Breeders Association, Ms F Bayliss, Coed y Ceirw, Broadoak,
Carmarthenshire SA32 8AS.
Tel: 01558 668622
- 140 **SOAY**
c/o Rare Breeds Survival Trust, 4th Street, NAC, Stoneleigh Park, Kenilworth,
Warwickshire CV8 2LZ.
Tel: 01203 696551
- 142 **SOUTHDOWN**
Southdown Sheep Society, C B Pritchard, Southdown Lodge, 300 Cople Road,
Cardington, Bedfordshire MK44 3SH
Tel: 01234 838807

- 144 **SOUTH WALES MOUNTAIN**
South Wales Mountain Sheep Society, E J Thomas, Penrhiw Farm, Trelewis,
Treharris, Mid Glamorgan CF46 6TA.
Tel: 01443 412949/410391
- 146 **SUFFOLK**
Suffolk Sheep Society, Miss P Lawrence, The Sheep Centre, Blackmore Park
Road, Malvern, Worcestershire WR13 6PH.
Tel: 01684 893366
- 148 **SWALEDALE**
Swaledale Sheep Breeders Association, R Waggett, 2 Skelton Hall, Marske,
Richmond, North Yorkshire DL11 7NE.
Tel: 01748 850280
- 150 **TEESWATER**
Teeswater Sheep Breeders Association Ltd, D W Ward, 1 The Mount, Leyburn,
North Yorkshire DL8 5JA.
Tel: 01969 623432
- 152 **TEXEL**
British Texel Sheep Society Ltd, S McLean, NAC, Stoneleigh, Kenilworth,
Warwickshire CV8 2LG.
Tel: 01203 696629. Fax: 01203 696472
- 154 **VENDEEN**
British Vendéen Sheep Society, A Tidswell, 20 Brookfield Drive, Wolvey,
Hinckley, Leicestershire LE10 3LT.
Tel: 01455 220456
- 156 **WELSH HILL SPECKLED FACE**
Welsh Hill Speckled Face Sheep Society, Mr R Griffiths/Mr M George, Morris
Marshall & Poole, Bank House, Great Oak Street, Llanidloes, Powys SY18 6BW.
Tel: 01686 412567. Fax: 01686 413462
- 158 **WELSH MOUNTAIN — HILL FLOCK**
Welsh Mountain Sheep Society — Hill Flock Section, W G M Jones, c/o WAOS
Ltd, Brynawel, PO Box 8, Aberystwyth, Dyfed SY23 1DR.
Tel: 01970 624011
- 160 **WELSH MOUNTAIN — PEDIGREE**
Welsh Mountain Sheep Society — Pedigree Section, Mr M Voyle, Erw Myrddin,
52 Ffordd Celyn, Denbigh, Clwyd LL16 5UU.
Tel: 01745 814289
- 162 **WENSLEYDALE**
Wensleydale Longwool Sheep Breeders Association, Lt-Col F H Pedley, Old Hall,
Hunton, Bedale, North Yorkshire DL8 1QJ.
Tel: 01677 450579
- 164 **WHITE FACE DARTMOOR**
White Face Dartmoor Sheep Breeders Association, J E Harris, 13 West Street,
Ashburton, Devon TQ13 7DT.
Tel: 01364 652304/652695
- 166 **WHITE FACED WOODLAND**
White Faced Woodland Breeders Group, Mrs C Muddiman, 2 Biddlesden,
Brackley, Northamptonshire NN13 5TR.
Tel: 01280 850677
- 168 **WILTSHIRE HORN**
Wiltshire Horn Sheep Society, J R N Thwaites, Fairwater Farm, Hawkchurch,
Axminster, Devon EX13 5XB.
Tel: 01297 678539 (Office 01935 75573)

Index to
Description
Page

- 170 **ZWARTBLES**
The Zwartbles Sheep Association, Mrs P S Aikenhead, Goatacre Farmhouse,
Meadstead, Alton, Hampshire GU34 5PU.
Tel: 01420 562801. Fax: 01420 563992

RECOGNISED HALFBREED SECTION

- 174 **LOMOND HALFBRED**
The Lomond Halfbred, Scottish Fine Wool Producers Ltd, F Wood, Ledard Farm,
by Aberfoyle, Stirling FK8 3TL.
Tel: 01877 387219
- 176 **MASHAM**
Masham Sheep Breeders Association, Mr D Ward, 1 The Mount, Leyburn, North
Yorkshire DL8 5JA.
Tel: 01969 623432
- 178 **NORTH OF ENGLAND MULE**
North of England Mule Sheep Association Ltd, Mrs D Bell, Tunstall House,
Wolsingham, Bishop Auckland, Co Durham DL13 3LZ.
Tel: 01388 527411
- 180 **SCOTCH HALFBRED**
Scotch Halfbred Sheep Breeders Association, Miss H Thompson, The Kennels,
Yair, Gallashiels TD1 3PW.
Tel: 01896 850709
- 182 **SCOTCH MULE**
Scotch Mule Association, Mrs S Jackson, Llindifferon Farm, Ladybank, Cooper,
Fife KY15 7RX.
Tel: 01337 810230
- 184 **SCOTTISH GREYFACE**
c/o Society of Border Leicester Breeders, Mr C Douglas, 3F2, 4 Alexander Drive,
Edinburgh EH11 2RH.
Tel: 0131-313 5037 (Home)/01555 2281 (Office)
- 186 **SHETLAND-CHEVIOT**
Shetland-Cheviot Marketing Society, J A Johnson, Fairview, Vidlin,
Shetland ZE2 9QB.
Tel: 01806 577227
- 188 **WELSH HALFBRED**
Welsh Halfbred Sheep Breeders Association, Mrs G Napper, Bryn Teg,
Penygarneidd, Llanrhaeadr-y-Mochnant, Oswestry SY10 0AW.
Tel: 01691 860336. Fax: 01691 860571
- 190 **WELSH MULE**
Welsh Mule Sheep Breeders Association, W G M Jones, c/o WAOS Ltd,
Brynawel, PO Box 8, Aberystwyth, Dyfed SY23 1DR
Tel: 01970 624011

PURE BREED SECTION

Badger Face Welsh Mountain



Badger Face Welsh Mountain

□ Description

Torddu, the Welsh name meaning 'black belly' have distinct black stripes above the eyes and a black stripe running from under the chin to the belly and continuing underneath to the end of the tail. The legs are black with a tan stripe. The fleece can be white, grey, or light brown, but preference is given to the lighter shades. The wool should be firm and of medium length (7-10cm). The Torwen, the Welsh meaning 'white belly' show the reverse colouring, but with a smaller eye stripe. Both Torddu and Torwen rams are horned and weigh up to 90kg. Ewes are polled and weigh up to 60kg. The body should be compact and strong and of medium size.

└ History

The Badger Face pattern is a recessive trait in Welsh Mountain sheep which was once very common but became less popular in the Middle Ages with the requirements of wool traders for a white fleece. The Torwen colour pattern shows a strong similarity to the Soay and Moufflon breeds and there is reason to believe that at one time a proportion of Welsh Mountain sheep were coloured: reference to Welsh sheep of 'badger colouring' in livestock books from the 17th Century indicate that the breed was well known then.

The Breed Society was formed in 1976 with the aims of safeguarding the future of the sheep and improving the quality and quantity. Breed characteristics were determined from reports of extensive trials carried out at the University College, Bangor, in 1922-23 by Dr Frazer Roberts.

❑ Main Purpose of the Breed

The Badger Face is a meat breed, its qualities suit it for both light lamb production off hill grazing (mostly for export), and as a smallholder sheep on lowland or hill. The ewes are used either with a Badger ram or a terminal sire breed ram to produce fast growing strong lambs, the finished carcass weight of which will depend on whether the ewes are on the hill or lowland (11-18kg).

The fleece is used mainly for carpets (Bradford Count 48-58) but is popular with hand spinners and others who appreciate the naturally coloured wool.

❑ Outstanding Qualities

Badger Face sheep have the hardiness, thriftiness, and mothering quality that make all the Welsh Mountain sheep so economical to keep. The ewes have a high milk yield and lamb easily producing strong lambs with a high proportion of twins in a lowland regime. The meat is lean, tender, and of excellent flavour.

This attractive and easily managed breed is becoming increasingly popular throughout the UK with approximately 200 registered flocks nationwide. Showing classes are held at the Royal Welsh Show, and the Royal Show as well as at County and local shows.

The Society continues to improve the breed through the medium of ram inspection and holds a Show and Sale of registered stock at the main NSA Ram Sale at Builth Wells.



The Badger Face Welsh Mountain Sheep Society

Balwen Welsh Mountain



Balwen Welsh Mountain

❑ Description

The Balwen Welsh Mountain sheep is a sheep for all seasons. One of the original Welsh breeds of sheep the Balwen remains as one of the most striking and versatile of all the rare breed sheep. The sheep has a base colour of black, dark brown or dark grey. It has a white stripe running from the pole of the head to the top of the nose, four white feet and half a white tail.

❑ History

Its existence today is thanks to a handfull of dedicated breeders who saw the potential of the breed and worked hard to raise numbers to what they are today.

The Balwen sheep originates from the Upper Tywi Valley north of Rhandirmwyn in Dyfed in Wales, an area particularly suited to this tough hardy breed.

❑ Main Purpose of the Breed

The Balwen is the ideal small holders sheep it is small and compact, easy to keep requiring very little concentrates. They have very few health problems and need only the occasional feet trimming sessions.

They are extremely hardy living outside the whole year round in all conditions, very often in bad weather, commercial ewes and lambs can be seen struggling in the middle of fields trying to satisfy their voracious appetites. The Balwen and her lambs will be seen under the hedge biding

their time and saving themselves and their energy.

■ General Information

The full grown ewes and rams are a small manageable size. Females fully grown weigh approx 40-50kgs, males 45-60kgs. Although sizes will vary depending how the sheep are kept. The sheep being small are easy to catch and turn over so suit women and children particularly well.

The breed, however, are spirited, they can be quick and nimble. To keep Balwens good sound fencing is essential. They do become quite attached to their owners and a bucket of feed resolves most problems.

The Balwens are increasing in popularity and with the onset of young handler classes at many shows 'cute' little Balwen lambs with 'cute' little children do draw the judges eyes. As indeed do the fully grown adults in breed championships and inter-breed championships.

The breed itself is not without its problems though, the Balwen is somewhat notorious for not breeding perfectly marked sheep although many do say that its part of the attraction of the breed. During the period when breed numbers were particularly low and prior to the formations of the Breed Society in 1985 many crosses were made into the breed which are today proving a challenge to remove.

To speed up the removal of imperfections within the breed the Society introduced a penalty point system. In order to achieve fully registered status, females must have under 20 penalty points and males no penalties. The Society is unique in itself being the only one that insists on inspections of all breeding stock. Any females with points totalling 20 to under 30 are eligible to be registered as a grading up female although this isn't really a true description of the status of the sheep, what it actually means is the sheep is not as well marked as it should be. The Society does not allow males to be registered out of grading up females.

Balwens fully registered by the Society carry a unique number printed on a white tag with a flash prefix on the other side. Grading up sheep carry a red number tag.

The breed standard for 1998 is to be tightened up so therefore this will mean that more sheep will be of grading up standard so 1998 will be an ideal year to buy breeding sheep for a starter flock. Many new buyers often ask what is the market like for the Balwens. If you've got a good one you can name the asking price. Registered stock sell to high prices at Breed Society sales and lambs which don't quite make the grade make an ideal lamb for the freezer trade tasting sweet and succulent.

Average prices for Balwens at the 1997 Breed Society Sale were:

Shearling Ewes 6 sold, average £92.25, highest price £157.50.

Ewe lambs 54 sold, average £97.88, highest price £378.

Older rams 13 sold, average price, £291.80, highest price £504.

Ram lambs 15 sold, average £227.85, highest price £714.

Aged ewes 9 sold, average £60.67, highest price £136.50.

For any further details on this delightful breed contact Susan Jones on 01558 822652.

"Go on, keep Balwens, they're a whole lot more than just a pretty face."

■ Outstanding Qualities

The ewes make superb mothers with an inherent strong mothering ability. Ewes generally have single lambs but under the right conditions do twin and rear both lambs successfully.

The ewes milk extremely well with tight compact udders bursting with milk. They have very few problems lambing and lambs are quick to get away.

The Balwen Welsh Mountain Sheep Society



Beltex

□ Description

Beltex is a medium sized sheep, long in the body. It is wedge-shaped from a narrow shoulder to a distinctive large, double-muscled hindquarter.

Head. The head is generally white in colour but may have black, blue or brown shadings or patches. Colour is irrelevant to quality. The fore face is short and thick.

Neck. The neck is thick and short.

Body. Well muscled shoulder. A wide back and long barrel shaped body.

Gigots. The distinctive characteristic of Beltex Sheep is the double-muscled hindquarters, sloping pelvis, low set tail, deep flushed, well rounded and full of meat. The (excessive) hindquarter development when compared to the line of the shoulders gives a wedge-shaped appearance.

Legs. Sheep should be mobile and capable of natural service. Joints should be straight and sound. Legs are usually white but colour is irrelevant. Feet tight. Pasterns upright. Fine bone structure.

Fleece. Tight, dense of medium staple length, affording a good protective birth coat to the lamb. A medium to tight fleece is tolerated.

Bone. Fine bone is a desirable characteristic.

Teeth. Teeth are scored on 1 to 5 scale, where 1 is extreme undershot and 5 extreme overshot, with 3 being perfect. Only animals with a score of 2, 3 or 4 are considered acceptable.

History

Breed developed in Belgium. Imported into England 1989.

Main Purpose of the Breed

Beltex is primarily a terminal sire to cross with native British sheep and halfbred continental sheep. Conformation is the breeds main priority. The resultant lambs are born with ease, thrifty and quick to grow. Finished lambs yield a high killing out percentage and a carcass with well fleshed legs, good eye muscle, a long loin and neat shoulders.

The finished lambs are sought after for their superior conformation.

General Information

Average male bodyweight	95kg
Average prolificacy	1.7
Average lamb birthweight	7lb
Boning Out Percentage	up to 55%
Killing Out Percentage	halfbred up to 60%

Lambs can be finished economically from 15kg to 30kg deadweight with the appropriate fat-cover.



The Beltex Sheep Society



Berrichon du Cher

❑ Description

The Berrichon du Cher is a polled white faced sheep with a medium fleece of high quality. The body being compact well muscled and medium to large status.

❑ History

This long established breed originated from the native breeds of the Berry region of France. It was improved in the 1760's by the Merino and in the 1850's by the Dishley Grange Leicester. Since that time the breed has been standardised with many top flocks being in the same family for generations. They have been exported to many countries throughout the world, and have adapted well to greatly varying climates and systems.

The Breed Society was started in the United Kingdom 12 years ago.

❑ Main Purpose of the Breed

The most flexible of foreign breeds as a terminal sire on both upland and lowland flocks to produce quality lean lambs for the home and export market. The Berrichon is also greatly used on upland ewes to produce the cross bred ewe with added conformation.

❑ General Information

Average Prolificacy	185%
Range	175%-200%

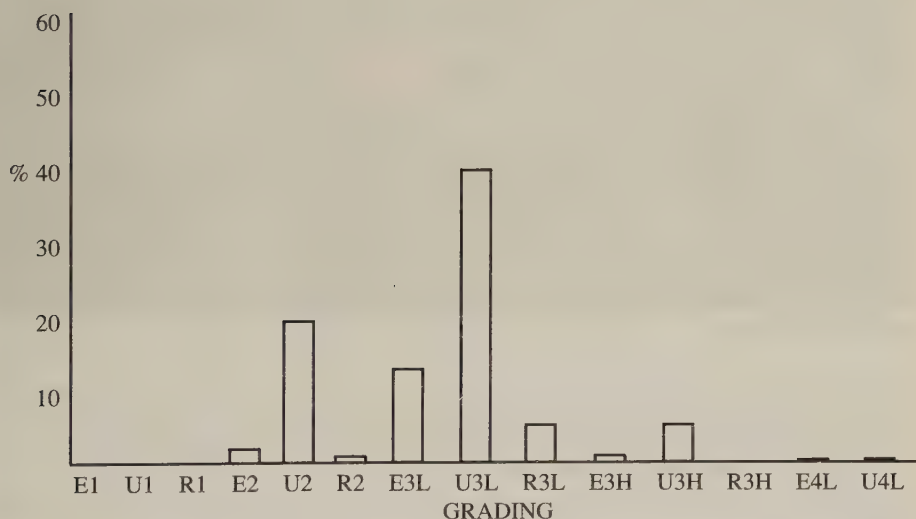
Average Birthweight

Singles	4.5kg
Twins	4.2kg

In France where growth weights are recorded at specialist testing stations on ALL breeds the Berrichon du Cher has the HIGHEST growth rate of ALL the French breeds. Carcase weights are flexible ranging from 16-26kg without any detriment to the quality.

Average Adult Bodyweight	90Kg for a mature ewe
	130kg for a mature ram

The graph shows the percentage of grades from 189 Berrichon lambs out of Texel and Suffolk cross Mules, born March 1997. Slaughtered by Southern Counties Meats and graded by MLC.



A Breed Advancement Scheme was launched in 1995 to further improve quality of carcase and growth. MLC indexed ram lambs are now being put to trial on a commercial flock.

□ Outstanding Qualities

The hardy lambs are most importantly born with enough wool cover to protect them against wet and cold. Easy lambing with an instant ability to get up and suck. They produce fast maturing lambs suited to any system.

With the ability of all season lambing the Berrichon enables early or late lambs to obtain the maximum price from the market place.

The great depth of lean fleshing especially on the hind legs, loin and back makes the Berrichon an excellent meat producer.

The British Berrichon du Cher Sheep Society Ltd

Beulah Speckled Face



Beulah Speckled Face

□ Description

Head: Face free from wool, distinctly speckled. Ewes are hornless, as are the majority of rams. A long head is preferred with erect ears pointing slightly forward.

Legs: Free from wool, distinctly speckled.

Wool: White wool, free from any other colours, varying from high quality to longer coarser fibres.

□ History

This speckled-face sheep has been bred on the hills of Eppynt, Llanafan, Abergwesyn and Llanwrtyd Wells for over one hundred years, without any introduction of female stocks. Flockmasters have exercised discretion in purchasing a consistent type of sheep which has been improved by the present Breed Society, formed in 1958 and which bears the full title of the Eppynt Hill and Beulah Speckled Face.

□ Main Purpose of the Breed

On the hills the ewes are normally pure bred providing flock replacements, finished lambs for the meat trade or store lambs for finishing on lowland farms; being easily managed and lambed because they require minimal attention. The Beulah ewe is also ideal for crossing with most Continental rams, as well as a Suffolk or any suitable Down ram, to produce the quality

carcases required by the present day British and Export trade.

Draft ewes are keenly sought after by the lowland farmer to use for crossing with Down rams, as these ewes have an excellent reputation for good mothering and milking. It is bigger and less hardy than the true mountain sheep which spend all their lives on the hills and mountains, although there are strains of Speckled mountain sheep of a very hard type, these do not exhibit the same characteristics, nor are they managed in the same way as the true Eppynt Hill and Beulah Speckled Face sheep. Due to this management, where the ewes spend part of the year in confined areas or fields, they are easier to manage than the true mountain sheep, when sold to lowland farmers as draft ewes.

Eighteen years ago the Bluefaced Leicester ram was introduced into this area with the objective of producing the Welsh Mule. The Beulah Speckled Face ewe has proved to be the most successful breed for crossing with this ram to produce the Welsh Mule; this is reflected in increasing demand and excellent prices for Mule ewes and ewe lambs. This crossbred ewe is then put to a terminal sire for the production of prime quality lamb.

❑ General Information

Lambing percentages average 160%-170% with yearling ewes slightly less. In a recent survey 98.3% of ewes put to the tup produced lambs.

Average figures show that the good strong coated lambs can achieve liveweight gains sufficient to reach 36kg liveweight at 12-15 weeks.

Mature rams weigh around 86kg, ewes 52kg.

❑ Outstanding Qualities

This breed gives a fleece of very clean soft handling wool. Ewe fleece weights vary from 1.5-2kg in the finer and purer grades while the poorer grades may give up to 2.5kg. Staple lengths vary according to qualities run from 50-58 which give the wool a good outlet in the manufacture of high class fabrics such as soft handling tweeds and fine flannels, also knitting wool; whilst the long coarse fibres are largely used in the mattress, carpet and rug trades.

Breed rams have found great demand in many mountain flocks to improve size and wool quality with a large number of rams going to North Wales and several English Counties and to Argyllshire on the west coast of Scotland where the breed has done exceptionally well under severe weather conditions. Beulah sheep have recently been exported to Portugal for breeding.



Blackface

❑ Description

The most numerous of British breeds, the Blackface, is found over a wide spectrum of hill and marginal ground throughout Great Britain and Ireland.

All Blackfaces are horned, with black or black and white face and legs. The fleece should be free of black fibre, and can vary from short, fine wool used for carpets and tweeds to strong coarse, which is mainly sold for the Italian mattress trade.

Influenced by climate, environment and grazing quality several distinct types have evolved within the breed and are generally identified by the centres at which they are sold.

The PERTH type, a large framed sheep with a medium to heavy coat, is found mainly in North East Scotland and Northern Ireland.

The LANARK type is dominant in Central and Southern Scotland and the Borders. It is of medium length, with a shorter, denser coat than the Perth type. Over the past 30 years a strong influence of NEWTON STEWART blood has been introduced; benefiting both milking ability and hardiness.

The original NEWTON STEWART or GALLOWAY type is a compact, burly sheep with a short, thick rain resistant coat, and is found, in its native South West Scotland, and many of the hard, wet areas of the West of Scotland, the Hebrides, and Ireland.

In the North of England the large framed, soft-coated NORTHUMBERLAND Blackface is influential in the breeding of the North of England Mule.

History

The breed's origin is lost in the mists of time, but it undoubtedly emerged from the genetic umbrella of 'horned' sheep from which also sprang the Swaledale, Rough Fell and other localised types such as the Lewis and Mayo Blackface.

Monastery records of the 12th Century speak of the Dun or Blackface breed of sheep. The Monks used the wool for their clothes, and also exported large amounts to Europe.

The 16th Century saw King James IV of Scotland establish an improved Blackface flock in the Ettrick Forest. During the 17th and 18th Centuries it was known as the 'Linton' sheep, West Linton in Peeblesshire being the main sale for the type. It could be found throughout much of Scotland, and actually preceded the Cheviot to the North at the start of the Highland Clearances though the Cheviot gained preference due to the higher wool price.

In the late 19th and early 20th Centuries there was an upsurge of interest in breed improvement. After Hitler's war Blackfaces replaced the Border Cheviot on many South of Scotland sheepwalks; themselves, often enough, to be replaced by forestry.

Main Purpose of the Breed

1. The principal function of the breed is to utilise to the best advantage the hill and mountain grazings of the British Isles producing store lambs for further finishing off grass, rape, turnips or in-shed. Off better hill grazings many lambs are sold 'prime' to kill, direct off their mothers. At carcase weights of 15-19kg these lambs can claim to be as near 'naturally produced' as anything available today. There is now a market in Italy and Spain which is ideal for the smaller Blackface lamb, carcase weight 8 -12kg.

2. Of equal importance is the breed's position at the summit of the pyramid of stratification of the British Sheep Industry. The hill areas provide a reservoir of females which are drafted as five or six-year-old ewes, shearling ewes and ewe lambs, to marginal and upland farms, where they are crossed with the Bluefaced Leicester to produce the Scotch and North of England Mule, or Border Leicester to produce the Greyface ewe.

3. Crossed with a terminal sire the Blackface ewe produces a quality prime lamb, or a store lamb for finishing.

General Information

Average Prolificacy: Ewe Lambs. Not usually put to ram; Mature ewes Hard hill 80-100%; Better hill 100-125%; Marginal/Upland 125-180% dependant on grazing quality; Shearling ewes approx 15% below these figures.

Average Birthweight of lambs: Singles 3.5-4.5kg (dependant on environment); Twins 0.5kg less.

Carcase weight of lambs at slaughter: Milk lambs 15-17.5kg; Finished stores 16-20kg; No figures available on carcase dissection.

Average adult bodyweight: Upland 70kg; Ave/good hill 50-65kg; Poor hill 45-50kg.

Outstanding Qualities

Survivability, Adaptability, Versatility, with the breed adapting to most farming situations.

Breed Developments

The Blackface breeders are involved in both Sire Reference groups and breed improvement projects.

Black Welsh Mountain



Black Welsh Mountain

□ Description

Hardiness and self-reliance are the outstanding features of this ancient breed. Hill flocks of this breed, in normal conditions, require no supplementary feeding, they thrive on the short rough grasses and herbage of the unploughable uplands.

□ History

Early Welsh writings from the Middle Ages give much prominence to the black fleeced mountain sheep. The mutton was highly praised for its richness and excellence. Black wool referred to as 'Cochddu' – because the tip of the wool bleaches in the summer sunshine and becomes a reddish brown. This wool was much sought after by the numerous home spinners of those days, as well as the small local Woollen Mills.

A Century ago, leasing Welsh stockmasters started selecting black lambs of good conformation and quality and bred them carefully to produce a pure strain of Black Welsh Mountain Sheep.

The Association – The Black Welsh Mountain Sheep Breeders' Association was formed in 1920, and it is perhaps indicative of the Association's awareness of the needs of the commercial meat market that the formation took place at a meeting convened by Major and Mrs Jervoice (Flock No. 3) at the Smithfield Show of that year.

┘ Main Purpose of the Breed

The breed has an important dual purpose for the breeder, namely, to produce meat for the

market as it is renowned for its flavour. The bone is light, with a commendable meat to bone ratio. The small popular joints are full of succulent lean meat, with minimum of wasteful fat. The meat is close in texture, rich in colour, full of value and of distinct flavour.

The major proportion of the weight is in popular joints.

Secondly it is important to breed high quality stock for replacements in the flock and to have a surplus of good stock on offer to meet the ever increasing demand at the Annual Breed Sale and other enquiries.

❑ General Information

The ewe lambs comfortably in the open. Mortality rates are very low under normal management. Lambing usually takes place from mid February to end of March with lambing percentages of the order of 175% per ewe throughout the recorded flocks. The breed reacts most favourably to improved lowland management and lambing rates of well over 200% are attained.

Renowned for ease of lambing, the ewes are deep milking and dedicated mothers. New born lambs are quick to suckle and record rapid growth rates.

The finished lambs of the pure breed average 14-19kg carcase weight and so are well suited to the present day demands.

The average weight of a matured ewe would be around 45kg with the average ram making 60-65kg.

Several Black Welsh Mountain flocks are now Maedi Visna Accredited.

The ewes cross well with meat producing rams for fat lamb production.

In addition to these proven characteristics, sheep farmers are now accepting attributes which many registered breeders have observed over many decades:

1. An almost uncanny resistance to fly attacks.
2. Considerable in-built resistance to foot infections and unsoundness.

Wool – Black, short, thick and firm to handle, and must be clear of any white strands. Most suitable for weaving into cloth which is durable, light and warm. With good quality white wool, blends into attractive checks and patterns. In the home counties and abroad specialist interest is shown in black wool for home spinning and weaving as it does not require dyeing. Wool clips average 1-2.5kg (3-5lb) per fleece. When cured the rich, deep-pile black fleece skins are in demand as floor rugs and chair backs.

Breed Promotion – The main promotion thrust is through the medium of national and local shows. The breed has well supported classes at the Royal Show of England, the Royal Welsh, the Royal Bath & West, the Royal Smithfield and numerous other shows.

Breeders and stock attendants at these shows are always delighted to give information to potential members. The annual Breed Show and Sale, also a big attraction, is held at Abergavenny Market on the first Thursday in September.

The Flock Book now has nearly 250 active breeders throughout Britain and overseas.

The affairs of the Association are controlled by an elected Council. Regular meetings are held by kind permission of the Curator at the Museum of Welsh Life, St Fagans, Cardiff.

Interest in the Breed and the Association is continually spreading.

If you are thinking of sheep, save yourself a lot of trouble by choosing the Black Welsh Mountain.

Detailed guidelines for selecting the Breed along with further information and a list of registered breeders will be gladly supplied by the Association's Secretary.

The Black Welsh Mountain Sheep Breeders Association



Bleu du Maine

❑ Description

The Bleu du Maine is a large grassland sheep with slate blue/grey colouring on its head. It has a very alert eye, large nostrils and ears and no horns.

❑ History

The Bleu du Maine originated in Western France and was first introduced into the United Kingdom in 1980. Since this time, the breed has won Inter-breed titles at both the Royal England and Royal Welsh Shows.

❑ Main Purpose of the Breed

The breed is primarily being promoted as a female producer, although in certain parts of the country, sheep breeders still use the Bleu du Maine ram as a terminal sire on such breeds as: Romney, Southdown, Exmoor and Dorset.

If used on downland or hill breeds, the Bleu du Maine sire passes on traits of Profilicacy, Milkiness and Improved Conformation.

❑ General Information

• Profilicacy

Ewes and rams from this breed are both specially noted for being highly prolific. Pure bred flocks

have recorded lambing percentages of up to 240%. Ewe lambs mated at seven months of age have produced 200% lambing. Ram fertility gives a considerable boost to commercial flocks and independent field trials suggest that Blue du Maine cross females are more prolific than their traditional counterparts and, at the same time, leave progeny with much improved conformation.

- **Birthweight**

The Bleu du Maine is noted for producing big crops of small lambs which lamb easily, are hardy, grow quickly and have a strong desire to live. Within minutes of birth, lambs are on their feet and suckling and the ewe's plentiful milk supply ensures a very high growth rate.

- **Weight Gain**

Daily liveweight gains of 0.49kgs for twin ram lambs between 8 and 21 weeks old have been recorded and 56 day weights of 30-36kgs.

- **Bleu du Maine Cross Females**

The Bleu cross female is an enthusiastic mother with a fine head and bone to ensure easy lambing.

Lambing percentages in excess of 200% in commercial flocks frequently achieved.

Lambs are always vigorous at birth and keen to suckle.

Fleeces produced are of highest quality and command extra prices.

- **Adult Bodyweight**

Mature ewes	80-120kg
Mature rams	110-180kg

- **Fleeces**

Ewes yield up to 9kg of wool, uniform in quality and fibre length, very soft to handle, quite free from kemp and grey fibres and much sought after by hand spinners.

- **Carcase Lambs**

Those commercial breeders who do choose to use the Bleu du Maine as a terminal sire find that lambs produced have a high killing-out percentage due to the fine bone of the breed and are therefore highly suitable for boning-out plants where heavy weights of lean meat are required. Wether lambs produced when producing cross-bred females are also highly desirable due to improved conformation of the Bleu du Maine breed.

The traits of prolificacy, easy lambing and hardiness associated with the breed are all reproduced genetically. A Bleu du Maine sire across a flock gives the commercial farmer increased quantity with quality and therefore increased output.

Bluefaced Leicester



Bluefaced Leicester

□ Description

The Bluefaced Leicester should have a broad muzzle, good mouth, a tendency towards a 'roman' nose, bright alert eyes and long erect ears. The colour of the head skin should be dark blue showing through white hair although a little brown hair on head and legs is acceptable. There should be a good length of neck laid into broad shoulders, a good spring of rib and a long strong back with no weakness behind the shoulder. The hindquarter should be broad and deep, the legs well positioned and strong boned. The wool should be tightly purled, fine and dense, and opening cleanly to the skin.

□ History

The breed was evolved near Hexham in Northumberland at the beginning of this century. They were bred to produce top quality cross-bred ewes from the native Blackface and Swaledale ewes. The crossing rams used at that time were the descendants of Robert Bakewell's Dishley Leicester. Border sheep farmers selected the white-faced sheep to cross with their Cheviot sheep but the Northumbrian farmers preferred a darker coloured ram, with a finer skin. Rams were also selected for general confirmation and length, milking ability and prolificacy in the ewes, and crossed with the local blackfaced hill ewes.

By the 1930s the Bluefaced Leicester had developed into a distinct breed, popular throughout Tynedale, Weardale and East Cumbrian fellsides. Once established the breed quickly became

used throughout the main sheep farming areas of the UK.

■ Main Purpose of the Breed

The Bluefaced Leicester is a sire of top-quality, prolific and hardy, cross-bred ewe for commercial lamb production. The cross-bred progeny of the Bluefaced Leicester is the Mule, a ewe famous throughout the UK as the best commercial breeding ewe on the market. Her reputation is based on high performance prime lamb production under a variety of management systems. The Mule is unrivalled in its ability to produce and rear quality prime lambs when put to any terminal sire and yields a very high percentage of reared lamb from a relatively low fodder intake. It is this conversion of grass to meat which makes the Mule the most popular cross-bred available, and the Bluefaced Leicester the most popular crossing sire available.

■ General Information

The breed is highly prolific with in excess of 250% lambs per ewe put to the ram being commonly achieved in well managed flocks. The breed is early maturing and ewe lambs born in March can be bred from in their first year averaging lamb crops of around 140%; shearling ewes will average approximately 200%; whilst mature ewes usually average around 220%. The breed also has the milking ability to rear these multiple births successfully.

The breed grows to a large sheep in maturity. The average adult bodyweight of rams is around 115kg; whilst adult ewes weigh about 80kg.

■ Outstanding Qualities

The hybrid vigour produced by crossing the Bluefaced Leicester with pure hill breeds results in Mule lambs being active at birth and are so able to withstand quite harsh weather conditions from an early age. The lambs are well covered with wool and have a relatively good amount of hair on their heads.

Whilst the Mule wether lamb makes no claim to be an ideal prime lamb, it is a commercially viable side-product of Mule ewe lamb production, especially when grown on to its full potential and marketed as a hogget in the early part of the year following its birth. The versatility of the breed is again shown as it can be finished under any management system.

The Bluefaced Leicester is the longest sheep available in Europe. The breed will greatly improve any sheep breed with which it is crossed, making them longer, leaner and more prolific.

The wool from a Bluefaced Leicester is classed as demi-lustre and is the finest of any of the native sheep breeds. It blends extremely well with silk and mohair in the production of high quality fashion garments. Pure Bluefaced Leicester wool is much sought after by home spinners and it also commands the highest price per kilo from the wool marketing board of any of the native sheep breeds. This quality of wool is also passed onto the cross-bred progeny of the Bluefaced Leicester.

The Bluefaced Leicester is also a very early maturing sheep, passing this quality on to the Mule ewe lamb enabling it to breed in its first year reducing the flock depreciation costs considerably.

The Bluefaced Leicester Sheep Breeders Association was established in the 1960's to promote the merits of the breed. It now has 1800 members throughout England, Scotland Wales, Northern and Southern Ireland and also some overseas breed enthusiasts.

■ Breed Developments

To ensure the future development of the breed, the Association and its members have set up a Breed Development Scheme and nucleus development flock and also a Sire Reference Scheme. This will enable testing of pure-bred and cross-bred progeny for future breed development.

The Bluefaced Leicester Sheep Breeders Association

Border Leicester



Border Leicester

▢ Description

A distinctive large white sheep, long in body, well sprung in ribs with well developed chest and gigot, proud and graceful with white densely planted wool, 18-20cms in length.

▢ History

This is one of the British breeds of sheep of whose origin there is no doubt. They are lineal descendants of the Dishley Leicesters made famous by Robert Bakewell of Dishley, Leicestershire (1726-95).

Introduced into Northumberland in 1767 by the Brothers Cully, these improved Leicesters were established soon on both sides of the Border. In around 1850 the Northern breeders had established a breed which differed slightly from that favoured in the South and resultingly they began to call their sheep Border Leicesters.

▢ Main Purpose of the Breed

The value of the Border Leicester lies in its use as a crossing sire on the smaller hill and upland breeds of ewes to produce the quality halfbreds. The Halfbred ewe lambs are subsequently retained for breeding, producing a female which has rapid growth, prolificacy, milkiness and conformation. This ewe has the ideal base for prime lamb production when crossed with any terminal sire. The Halfbred wether lamb must also not be forgotten and it is he with size,

conformation, rapid growth and lean carcase that can mainly be sold directly for slaughter from the hill dam. The rest find a ready market as store lambs to be finished on grass and arable farms.

Five of the most popular crossbred ewes produced from the Border Leicester are the Welsh Halfbred, the Scotch Halfbred, the Greyface, the English Halfbred and the Speckled Halfbred produced from the Welsh Mountain ewe, the Cheviot, Scottish Blackface, Clun Forest and Speckled Face ewe respectively.

The Border Leicester is also used on a wide variety of other breeds including Suffolks and other Down breeds for early prime lamb production. On a world scale the Merino ewe is crossed with the Border Leicester where the meat qualities complement the wool qualities of the Merino. He is indeed a versatile ram.

Average Prolificacy

Ewe lambs	150%
Shearling Ewes	190%
Mature Ewes	210%

Average Bodyweight of lambs at birth

Singles	8.5kg
Twins	4.6kg

Carcase Weight at Slaughter

Carcase weight	18.5-19kg
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Average Adult Bodyweight

Mature Ewe	80-100kg
Mature Ram	125-150kg

❑ **Outstanding Qualities**

The clean aqualine head and not too heavy shoulders mean that the Border Leicester can be safely used on the smallest of ewes. They have a very high survival rate of newly born lambs due to their thick covering of wool at birth which is inherited in their crossbreds. Border Leicester crosses show a strong uniformity, an important factor when selling breeding and butchers stock. The fleece of the Border Leicester will range from 5.4-9kg in males and 3.6-6.4kg in females, grade of wool 48/50 Bradford Count (29.25-32 micron). Another important factor of the Border Leicester is that it can reach up to 31.5kg at 56 days easily with an average eye muscle of 30.2mm and back fat scan of 1.2-3. This information proves the Border Leicester to have the ideal carcase.

❑ **Breed Developments**

The Society now runs a Group Breeding Scheme at Glynllifon College near Caernarfon where through the use of recording techniques and genetic information the intention is to improve the flock in terms of its conformation milkiness and prolificacy. The nucleus of the flock was drawn from donations by members from all over the United Kingdom. The flock is now operated as a closed flock and the benefits and improvements in the scheme are now gradually coming through in the progeny.



Boreray

■ Description

The Boreray is a primitive breed. The weight of mature ewes is approximately 30kg and they stand approximately 55cm at the withers. The tail is short. Both sexes are horned and the horns of the rams are large and spiral. The face and legs are black, tan or grey, often with dark marks on a white ground. The wool is predominantly cream or light-tan with a small proportion of sheep having grey or dark brown wool. There is sometimes a dark rump patch and a dark colour, particularly in rams.

■ History

The Boreray originated from crosses between an early type of the Scottish Blackface and a Hebridean variety of the old Scottish Dunface in the late nineteenth century. Most of the breed exists as a feral flock of circa 400 animals on the island of Boreray in the St Kilda group, but some small flocks have been established on the mainland by private breeders.

For further information about this breed contact The Rare Breeds Survival Trust.

The Boreray Sheep /Rare Breeds Survival Trust

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Brecknock Hill Cheviot



Brecknock Hill Cheviot

❑ Description

White face and legs. Ears erect with no ruff of wool behind them. No wool on face or legs below knee or hock. Broad, strong back. Rams are occasionally horned, ewes are polled.

❑ History

The Cheviot was introduced into the Breconshire area of Wales in the mid-19th Century. Since then the breed has adapted to the wet uplands and hills of the Brecon Beacons, developing a new strain of Cheviot, which has come to be known as the Brecknock Hill Cheviot.

❑ Main Purpose of the Breed

The breed has retained the hardiness of the original Cheviots that arrived from Scotland over 120 years ago, enabling them to survive easily on the hills and mountains of Wales.

In the hills they are kept as pure flocks for breeding replacements or can be crossed with native Welsh hill breeds. They are suitable for utilising the full potential of improved hill pasture.

The draft ewes (originally known as the Sennybridge ewe), who will have already spent a few years on the high hill with the purebred flock, are ideal for crossbreeding purposes in the uplands where conditions are slightly kinder and less exposed. They are put to a suitable ram (popular

breeds being the Bluefaced Leicester and Border Leicester) to produce crossbred ewes for further breeding.

The crossbred ewes will be retained and put to a terminal sire for the production of quality prime lamb, whilst the wether lambs have adequate conformation to produce a good carcass, either finished straight from the ewe or sold on as store lambs.

Draft ewes can also adapt well to lowland conditions where they are used for prime lamb production. They will tolerate heavy stocking and their strong mothering instinct is combined with few lambing problems (hill breeds must be able to lamb quickly and easily and produce an instantly active lamb to ensure survival).

❑ General Information

Average Prolificacy:

Hill Flock	90-120%
Upland Flock	130-150%
Lowland Flock	160-180%

Carcass weight of lamb at slaughter:

Straight from ewe (16 weeks)	12-14kg
Over-wintered (store lamb)	18-22kg

Fleece characteristics:

Staple length	6-10cm
Fleece weight	1.5-2.5kg
Bradford Count	50's-60's

(A small amount of kemp may be present, but no red kemp)

Average Adult Bodyweight:

Mature ewe	60kg
Mature ram	90kg

❑ Outstanding Qualities

The Brecknock Hill Cheviot is an extremely adaptable breed, fitting in to hill, upland or lowland enterprises.

The ewe can produce breed replacements when put to a Brecknock Hill Cheviot ram, halfbred ewes when put to a longwool ram, or produce prime quality lambs when put to a terminal sire.

Rams are in demand to improve size and wool quality in native mountain breeds.

The Brecknock Hill Cheviot produces meat and wool to meet today's requirements, under most conditions and systems as economically as possible.

❑ Breed Developments

We have also participated in the Signet Sire Reference Scheme in conjunction with MLC Aberystwyth, for the past four years.

We have also undertaken a Scrapie Bloodtesting Scheme which has involved 95% of our members.



British INRA 401

□ Description

The British INRA 401 is a highly productive breeding ewe which has 200% prolificacy, excellent out of season fertility, good milk production and outstanding mothering ability.

The head is bright, kindly and alert, with good teeth and no horns. The ears are long and thin, the head white with a pink nose. The ideal British INRA 401 has a firm fleece of uniform quality and fibre length. Some chocolate coloured skin pigment is acceptable.

The body should be well proportioned with an even back, a well-sprung rib and good bone structure. The British INRA 401 should stand and walk well and be of a good size to make a large breeding ewe of 60 to 75kg.

□ History

The INRA 401 is the result of a French Government breeding programme begun in 1963 and lasting more than 30 years. Various breeds were crossed and tested by the scientists and technicians of the National Institute of Agricultural Research (INRA). The cross between the Berrichon du Cher and the Russian Romanov was most successful, combining the fine carcass quality of the Berrichon and the prolificacy of the Romanov. Both breeds can lamb out of season and this was later to prove helpful when, to increase the flock size and accelerate generations for study, the scientists bred the sheep three times every two years.

The breed was 'fixed' in 1980 to produce the INRA 401 but breeding rams were available to the French only from the national Research Centres until 1995. The French government also prohibited exports of the INRA 401, continuing to improve the breed before releasing it to the rest of the world. Selective breeding at the research stations succeeded in attaining higher body weight, increased milk production and more twin births.

The breed proved successful in a wide range of systems, temperatures and conditions. Perhaps because the sheep are hardy and self-sufficient, the INRA have been very popular in the large commercial flocks of France, where in 1995 visitors from the UK saw flocks of over 800 ewes.

That same year some British breeders bought pedigree rams and ewes, imported them into Britain and formed the British INRA 401 Society. The sheep have proven as popular and adaptable here as in other countries, being successful in traditional flocks as well as intensive indoor systems.

❑ Main Purpose of the Breed

The British INRA 401 is a highly productive breeding ewe which has 200% prolificacy, excellent out of season fertility, good milk production and outstanding mothering ability.

The main purpose of the breed is to supply a ewe that will lamb naturally at any time of the year, producing twins at each lambing. Mated to a terminal sire, she supplies high quality carcass lambs. French trials show that crossing the INRA ewe with a Texel or Suffolk terminal sire produces an INRA crossbred ewe that boasts 160% lambing out of season.

❑ Outstanding Qualities

The British INRA 401 ewe will lamb naturally any time of the year producing sturdy, white lambs with plenty of 'get up and go' that are easy to manage. Three lambings in two years without hormones or sponges are easily obtainable. Lambing average is high (213% per lambing) and the recorded birth weights average 3.97kg.

British Milksheep



British Milksheep

┐ Description

The British Milksheep is a medium-large polled sheep with predominantly white face and legs.

┐ History

The British Milksheep was developed by Lawrence Alderson to fill the growing need for a high performance crossing sire and for a high yield dairy ewe. The breed can now be found throughout the UK, and is in demand for export. It has proved itself to be the leading crossing sire breed in comparative trials and it transmits its high prolificacy and exceptional milking ability to its crossbred daughters.

┐ Main Purpose of the Breed

1. As the sire of high performance crossbred daughters for lamb production — Crossbred daughters of British Milksheep rams achieve an average reared lamb percentage of 195-245% depending on the breed of the dam.
2. As a dairy ewe — the British Milksheep can be used very successfully to upgrade dairy sheep both at home and abroad. Dairying flocks aim to achieve an average yield of 450 litres in a seven month lactation, the milk being particularly high in solids.

■ General Information

Prolificacy: The British Milksheep is the UK's most prolific native breed of sheep. Mature ewes average crops of 307%, shearling ewes 263% and ewe lambs 221%. Easy lambing, the lambs are vigorous and active at birth with triplet litters averaging birth weights of 4-5kg per lamb and twins 5-6kg.

Milk Yield: The British Milksheep produces more than twice the yield of other native breeds. Triplets reared solely on the ewe average a live weight gain of 0.33kg per day. When only twins are reared 50-day weights of 24kg per lamb are regularly achieved. (All performance figures are taken from Livestock Improvement Service Records).

Carcase: British Milksheep crossbred lambs produce carcasses of 17kg plus, within 2 and 3L grades and E, U and R categories (varies with ewe breed). British Milksheep store lambs provide high value early spring lamb without the tendency to get overfat.

Bodyweight: Adult rams 110kg, ewes 80kg on average.

Wool: The British Milksheep yields a heavy fleece of long-stapled, demi-lustre wool of 50-54 Bradford Count quality.

Hardiness: All classes of stock are capable of wintering outside in most testing weather — many pedigree flocks are run on land over 1000ft asl. They are robust and active sheep, the rams showing great libido all year round and the ewes breeding readily in their first year.

Docility: The breed is noted for its quiet temperament and strong maternal instincts.

■ Breed Developments

Recent trials by the Scottish Agricultural College, held in Caithness for the Evaluation of Alternative Crossing Sires for the North Country Cheviot Ewe have now been completed and information fully evaluated. The British Milksheep was one of five breeds in the trial to produce NCC X ewes.

The British Milksheep X North Country Cheviot Ewes had the highest lambing percentage — 243% for first crop ewes. (Live lambs per 100 ewes to the ram). The next highest lambing percentage for NCC X Ewes was 203%. Suffolk lambs born to British Milksheep X NCC Ewes also had the highest killing out percentage, highest average conformation scores and with an average carcass weight of 20kg.

Performance tested — Breed objectives have been to produce stock which can consistently achieve high levels of production, hence all registered British Milksheep are performance assessed annually both within and between flocks. Elite breeding stock only are used for the next generation of rams. Continuous genetic improvement remains of primary importance for British Milksheep breeders.



Cambridge

▣ Description

Dark faced, polled, medium sized with an average quality white fleece.

▣ History

Professor John Owen and Alun Davies founded the breed in 1964 at Cambridge University. The female foundation stock consisted of very prolific ewes selected from within native breeds. The qualification requirement was the production of at least three sets of triplets. Most ewes were from the Clun Forest breed but the Lleyn, Llanwenog and Kerry Hill breeds also contributed significantly and the Radnor, Ryeland, Border Leicester and Suffolk to a lesser extent. These ewes were crossed with Finn rams and the resultant F1 males backcrossed with the foundation flock to reduce the Finn contribution to 20%. These crossbreeds formed the nucleus from which the present Cambridge has evolved following an intensive selective breeding programme involving Universities, an Experimental Husbandry Farm and commercial farms.

▣ Main Purpose of the Breed

The particular value of the Cambridge is for crossing with other breeds and crossbreeds to produce a superior crossbred ewe.

Prolificacy figures for various crossbreds

	<i>No. of lambs born at the age of</i>		
	<i>1 year</i>	<i>2 years</i>	<i>3 years</i>
Cambridge x Welsh Mountain	1.4	1.8	2.0
Cambridge x Scottish Blackface	1.5	2.1	2.4
Cambridge x Clun Forest	1.5	2.0	2.4
Cambridge x Beulah Speckled Face	—	1.9	2.2
Charollais x Cambridge	1.6	2.1	2.3
Suffolk x Cambridge	1.7	2.1	2.4
Texel x Cambridge	1.5	1.9	2.2

In all cases it can be seen that the crossbred performance is near the mean of the two parent breeds; a variation of $\pm 10\%$ above and below these average figures may be expected from flock to flock.

The terminal sire crossbreds have proved to be particularly popular for a number of reasons: (i) the first cross surplus males have very good carcase characteristics; (ii) crossing the first cross female with a terminal sire gives a $\frac{3}{4}$ terminal sire lamb with excellent carcase characteristics; (iii) the Suffolk and Charollais crossbreds in particular suit well early lambing systems; and (iv) it offers the possibility of maintaining a closed crossbred flock by using one of several mating strategies, Cambridge ram on terminal sire ewes, or terminal sire ram on Cambridge ewes, or alternate use of Cambridge and terminal sire rams on crossbred ewes in a rotational breeding programme.

General Information

Average Prolificacy:

Ewe lambs	160%
Shearling ewes	240%
Mature ewes	280%

Average Birthweight of Lambs:

Singles	5.5kg
Twins	5.0kg
Triplets	4.0kg

Carcase Quality:

Weight at slaughter	17-22kg
Lean meat	60%
Bone	19%
Fat	21%

Average Bodyweight:

Mature ewe	75kg
Mature ram	100kg

Outstanding Qualities

The breed has a very high prolificacy some of which can be attributed, it is thought, to the presence of a single gene which has a major effect on ovulation rate.

Ewes have good teeth and udders which enable them to produce at high levels for many years; they are also quiet and easy to manage and are excellent mothers.

The breed is hardy and durable; rams frequently reach seven and nine years of age before they are culled.

Lambs are vigorous and viable at birth with a reasonably good birth coat so that post-lambing mortality is less than 5%.

Twin reared lambs grow at 300-350g per day, triplets reared at 260-300g per day, indicating the good milk yield of ewes and growth rate of their lambs.

The wool clip averages 2.5kg with a staple length of approximately 10cm.



Castlemilk Moorit

└ Description

The Castlemilk is a long-legged, short-tailed sheep with a moorit (light tan) fleece and distinct Mouflon-patterned markings, that is white patches on the underbelly, rump, lower jaw, knees and inside lower legs and around the eyes. The ewes have two uniform and wide-spreading horns whilst rams have heavy spiralling horns. The legs are clean, the back straight and the ribs well-sprung. The fleece is tight and even throughout, very soft to touch and deep chocolate at the base fading to light brown at the tips of the fibres. There is no kemp in the main body of the fleece, particularly in young animals although a little kemp around the tops of the legs and in the breech is acceptable. Staple length is 4-7cm, Bradford Count 48-50 demi-lustre and average fleece weight is about 1kg.

└ History

The breed was developed in the early 1900s by Sir Jock Buchanan-Jardine on his estate at Castlemilk in Dumfriesshire. His objective was to produce brown sheep to adorn the park and provide wool for clothing for the estate workers. He crossed moorit Shetland ewes with Manx Loghtan and Mouflon rams and the result was a prolific, graceful and agile parkland sheep having a distinct 'presence' whilst retaining the desirable primitive qualities of the constituent breeds.

The Castlemilk flock was dispersed in 1970 and the breed was very nearly lost but by happy

accident nine ewes and a ram were saved from slaughter and the entire breed today is descended from those ten animals.

❑ Main Purpose of the Breed

The Castlemilk of today is primarily a decorative and graceful producer of fine coloured wool. It also produces excellent meat from carcasses carrying little fat when killed at between six months and two years of age.

❑ General Information

The Castlemilk Moorit is Britain's rarest breed of sheep and is the only breed in Category 1 (Critical) of the priority list of the Rare Breeds Survival Trust (RBST, January 1998). There were 400 registered ewes in 39 flocks in the 1996 Flock Return of the RBST who are responsible for registrations for the breed.

The breed is one of the larger primitive types, mature ewes weighing 35 - 40kg and mature rams 50 - 55kg. Being a primitive breed, ewes rarely lamb before mid-March under natural conditions. Lambing rates are about 150%-170% although some breeders attain rates of 200% and above. The ewes are very good protective mothers and lamb easily even when carrying cross-bred lambs of larger breeds. Lamb birthweight is 2 - 4kg and pure-bred ram lambs can be expected to reach weights of 24 - 30kg off grass in six months.

The breed is still too small numerically to be able to carry out meaningful performance trials as the average flock size is only 10 ewes and the largest flock reporting in the 1996 Return had 27 ewes. However, Castlemilk rams have been used successfully in crossing programmes to produce lean, fast-growing lambs for slaughter, particularly from ewe lambs of larger commercial breeds or to produce cross-bred ewes with good mothering and lambing qualities. As the genes for the moorit colour of wool are recessive, the first-cross animals are usually the colour of the other breed in the cross.

There is an active Breed Society which holds an annual Show in May each year. The Breed Society is participating in the ongoing survey being carried out by the RBST to look at the genetics of scrapie resistance in rare breeds. The results so far available indicate that the Castlemilk Moorit is remarkably homogeneous (as might be expected from such a narrow genetic base) for amino acid variants on the relevant PrP gene codons, being AA₁₃₆ RR₁₅₄ QQ₁₇₁.

Most sheep are sold privately or through the approved Sales or other channels of the RBST. For information on availability of stock or any other information, please contact the Secretary, John Sanders, Castlemilk Moorit Sheep Society, Creacombermoor Cottage, Rackenford, Near Tiverton, Devon EX16 8EW. Tel: 01884 881222.



Charmoise

❑ Description

The Charmoise is a polled white faced and white legged sheep with deep body coated in a tight fleece of good quality. It has the most excellent conformation with short neck well muscled loins and strong gigots. It is light of bone and very alert and lively from birth.

└ History

In the early 19th Century Kent rams were taken to France to improve some of the Hill Breeds and so by the 1820s the Charmoise Breed was formed and it has bred true to this time. It is found in the rougher hill areas of France today where it is bred pure to produce a high quality small lamb. In France it is the only top conformation breed to be classified as 'race rustique' (hardy breed).

❑ Main Purpose of the Breed

The Charmoise ram is the ideal terminal sire to put on the Welsh Mountain, Swaledale or Scottish Blackface ewe to produce a very much improved lightweight lamb with stronger loins and better gigots for the quality markets both here and abroad.

The Charmoise have the ability to breed throughout the year and though the prolificacy is only 135% it can be bred on a nine-month cycle which may suit some extensive conditions.

❑ General Information

Average prolificacy	130%
Average birthweight	3-4 kilo
Average pure carcase	18 kilo
Average adult bodyweight	
Rams	80-90 kilo
Ewes	65-70 kilo

❑ Outstanding Qualities

The Charmoise thrives on poorer pastures and has the ability to retain its body condition.

Because of the small head and shoulders it is a very easy breed to lamb and as the ewes have plenty of milk and tight firm udders they are a pleasure to shepherd.



The Charmoise Sheep Society



Charollais

❑ Description

The Charollais is a medium to large sized sheep, long, well muscled with thick, deep gigots. The body is long with a well muscled broad loin and wide deep chest. The head is free from wool, pinkish/grey in colour sometimes with spots. The line of the shoulders should retain a wedge shape which is so important for ease of lambing. The legs are clean, quite short, coloured but never very dark. The front legs should not be set too wide apart and the animal must be well balanced. The gigots are well developed, thick and deep. The breed is primarily a terminal sire and the fleshing quality is of the highest importance. Excessive bone is undesirable in the breed; the fineness of bone contributes to the high killing out percentage achieved by the breed. The fleece is white, fine and dense, the staple length quite short.

❑ History

The breed originates in France from the famous Saone et Loire area where it runs alongside the Charolais cattle. The breed was developed in the 19th Century from local breeds crossed with the British Dishley Leicester. Since that time it has remained pure and today the Flock Book is run from the town of Charolles after which the area, sheep and cattle are named. The breed was first imported into the UK in 1976 and has also spread into many European countries, China, Africa, Canada and the US.

❑ Main Purpose of the Breed

The Charollais breed is now firmly established within the UK sheep sector as a major terminal

sire. Latest figures (MLC 1996) show that the breed commands 18% of the terminal sire market. Charollais rams are used to cross onto the UK's commercial ewe breeds ie mules, half breds, Lleyens to produce a high quality, lean lamb carcass. It is the breeds intrinsic qualities of fast growth, lean heavy fleshing, and conformation that make it the ideal sire of meat lambs for today's consumer. The end product is the breed's main consideration but the breed is also extremely 'farmer friendly'. The shape and bone structure of the breed ensures trouble free lambing. This aspect of the breed is unusual for such a muscular meat breed. Ease of birth leads to lively, vigorous lambs.

General Information

Average Prolificacy: The breed has very strong maternal traits. Mature ewes lambing in December will average 180%; this rise to 210-220% in February. Eight out of ten ewe lambs will take the ram from 7 months of age and will lamb at 130%+

Growth Rates: *Average Birth Weights* *Average Weight Gains 0-56 days*

Ram Lambs

Single	5.0kg	500g/day
Twin	4.5kg	420g/day

Ewe Lambs

Single	4.7kg	395g/day
Twin	4.0kg	380g/day

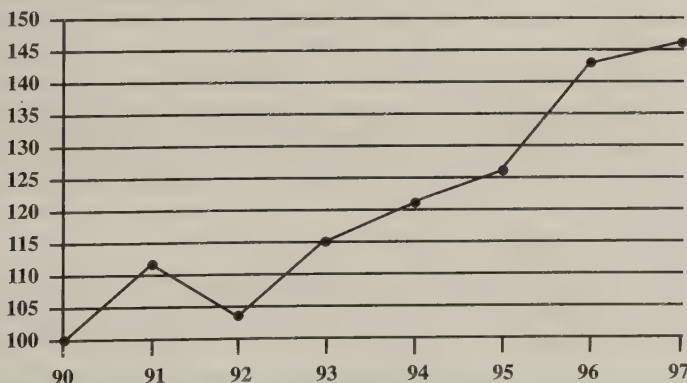
Multiples 3.5kg 330g/day

Mature Bodyweight Rams — 100-150kgs, Ewes 80-100kgs

Breed Developments

The Charollais breed is managed by one of the most forward thinking Society's in the UK. It continually strives for the identification of improved genetic material within the breed and its wide spread use. It has equipped its office with the best of modern technology which is used to maximise publicity for the breed and its breeders. It is innovative and tireless in its aim to put Charollais as the No. 1 terminal sire in the UK. In 1988 the Society initiated the formation of a Sire Reference Scheme. The main objective of the scheme is to increase the total lean meat yield and to maximise the growth rate of Charollais as the terminal sire of prime lambs most suited to consumer demand. The progress of the scheme has been impressive with average growth rates and muscle depths increasing significantly, without any increase in fat levels. The demand for high index rams from commercial ram users has increased year on year and now a substantial premium is made from this genetically improved stock.

Genetic Trends — Scheme Index



The British Charollais Sheep Society



Cheviot

❑ Description

A white faced Hill Sheep from the Scottish Borders. The ewe has fine hard white hair on her face, over the crown and on her legs which should have a fine, flat quality bone. The fleece should be dense and firm with no kemp or coloured hair. The Rams can have horns.

❑ History

White faced sheep have been run in the Borders for as long as records can show. A Centenary Tup Fair was held in September 1954 at Hawick, while the Cheviot Sheep Society had its Centenary in 1990 and keeps a Stud Book of eligible rams. This breed has been exported throughout the world and many tups now find their way to Wales and also to the Islands of North and West Scotland.

❑ Main Purpose of the Breed

The main source of income is from the production of quality lamb. The majority of the lambs are sold in the store ring although some of the top draws of wedders have been sold as prime lamb off their mothers in recent years.

The draft ewes were originally crossed with the Border Leicester to produce the famous Scottish Halfbred, now the Bluefaced Leicester is also used to produce the 'Cheviot Mule'. These crosses when put to a terminal sire produce quality lambs in-bye.

The wool, which was the base for the Border Tweed Industry and could also pay the tenants' farm rent, has now declined to marginal importance. It is chiefly used in the Tweed and Carpet Industry with a small amount going to the hand spinner and craft trade. Over the past two years the Cheviot fleece has had great success in the Wool Producer of the Year Competition both in Scotland and the whole of the UK.

❑ General Information

The Cheviot ewe can be found up to 3,000 feet and are expected to live off the hill throughout the year. There is hay given in severe stormy conditions and it is general practice now to give blocks or hand feeding about six weeks prior to lambing to get a fitter lamb and ewe in the spring. The ewes are hefted on to the hill with ewe lambs being added annually and the draft ewes taken off the hill at five or six years old leaving the regular ages on the hill. It is those ewes sold as correct that are crossed on in-bye ground, they can be put direct to the Texel tup and this cross has won many carcase competitions. Other tups used are the Suffolk and other breeds recently imported. The hill ewe can produce 100% to 120% in Hill conditions and with better keep can reach 140% to 160%.

The hill lamb can be graded at around 17kgs estimated dead weight off the ewe but is more usually overwintered for the spring trade by the feeders who purchase them in the store ring in the autumn and keep them on the lower ground to finish off turnips at around 21kgs. The hill lamb is a late maturing lamb which keeps its teeth and also its fresh lamb colour through to the spring.

❑ Outstanding Qualities

The quality of the Cheviot is based on the ewe which has a good shoulder and broad back especially over the loin with good square gigots. The hill lambs have regularly won the Mountain and Moorland Championship at the Royal Smithfield Show, and Scottish Winter Fair, with many other Championships having been won in Carcase Competitions. The handy weight of the lambs make them ideally suited for the European trade as they are well fleshed and should be shown lean.

The tups have been used extensively in Wales where the Brecknock Cheviot has been developed with the use of the Cheviot tup on the Welsh ewe. They have developed more horn recently, although the polled sheep is still demanded particularly in the Eastern district of the Borders.

❑ Official Sales

The main centres for the sale of lambs are Bellingham, Lockerbie, Longtown and Wooler. The sales are held at regular intervals from the end of August to November. The ewe sales are held as above and are all held in the second half of September when the top draws of 'correct' draft ewes are sold. The tup Show & Sale is held at Lockerbie on the first Monday in October, there are other sales at Lanark, and from 1998 we will be selling scrapie tested tups. The record price for our tups stands at £11,000.



Clun Forest

❑ Description

The breed are sharp and alert in appearance being of medium size they have fine wool which is sought after. The face and legs are dark brown with a grey muzzle not unusual but a speckled face and jaw is very undesirable and becoming very rare. Both rams and ewes are hornless with clean faces the distinctive boss of wool on the forehead with very sharp ears set at about five to one.

❑ History

The high area of grassland on the Shropshire, Powys Border gives its name to the native breed of sheep. Clun Forest is in fact higher than many local hills after which breeds of sheep are named. There was no single breeder central to the breeds development. It evolved from several local breeds of sheep now extinct and the Welsh and Shropshire. The area being high was given to producing ewes sold as two year olds and wethers sold in their second summer as fat mutton of the Welsh type with their tails long. In the 1950s and 1960s thousands of ewes were sold all over the country from several Welsh border sales the largest and best known of these being Craven Arms. These ewes were then crossed with Down sires to produce fat lambs of the traditional type weighing about 85lbs.

❑ Main Purpose of the Breed

The breed's main purpose is as a producer of hybrid ewes. This system where a small pure bred

flock can greatly reduce the instance of ewe borne disease is becoming important. The shape of the head and size of lamb make it a suitable sire to run on ewe hoggs. Ewe hoggs and several rams are sold each year for this purpose. Hogg lambs are sold at lighter weights when lambs of this type are getting less plentiful towards the end of the hogget season.

❑ General Information

Prolificacy Results 1997

Lambing %

Shearlings	177%
Ewes 2/3 Crop	179%
Spread	48 days

Average eight week weights	Ram lambs	Ewe lambs
	kg	kg
Singles	23.6	21.7
Twin	20.7	19.2

Typically there is a range difference of plus or minus 4kg (30% is about the norm). So plenty of potential to select better milking females and through them the sires.

❑ Outstanding Qualities

Longevity is a strong point, the teeth last very well and the feet are very sound if looked after reasonably. For a long time Clun Forest were classed as easy care sheep, which they are, but this does not mean total neglect.

The hybrid ewes crosses of Border Leicesters (English Half Breds) Blue Faced Leicesters (English Mules) and Colbreds have been used for a number of years and have their following. In recent years crosses with continental breeds have become more common and are proving to be of good commercial value, both as ewes and the males being of a desirable type for the modern meat trade.

Scrapie has never been a problem in the breed, the results of genotyping recently carried out are very promising showing the animals tested to have good resistance thus giving scientific backing to the known fact the Scrapie was unlikely to be a problem in a Clun Forest Flock.

❑ Breed Developments

A breed improvement scheme is in its early stages. Initial results have shown a wide range of traits with some very promising individuals. It is hoped that these will continue to be identified and propogated using all methods available as well as the traditional breeders skills.



Colbred

▮ Description

A medium sized, white faced breed of good conformation, polled in both sexes. The cross bred type white fleece is of even quality producing a clip of around 3.8kg.

▮ History

The breed has been developed by Mr Oscar Colburn since the last war, the result of a long established and intensive breeding programme.

▮ Main Purpose of the Breed

The Colbred ram is used to produce half bred daughters out of a wide variety of native ewes. It is capable of transmitting high fertility and high milking capacity to the half bred progeny.

The Colbred ewe is bred to be the dam of a prime lamb when mated to a range of meat type sires. The ewe produces a lamb with a high yield of muscle and freedom from excess fat.

General Information

Average Prolificacy:

Ewe lambs	110%
Shearling ewes	165%
Mature ewes	182%

Lambing percentage is calculated on the basis of ewes put to the tup compared with lambs sold or weaned.

Weight gain of lambs (56 day weights in kg):

	Females	Males
Singles	22.7	25.0
Twins	20.8	22.2
Triplets	17.7	19.8

Weights are based on the averages of four years (1978-1981) MLC weighings of more than 2,000 lambs.

Carcase quality:

Carcase weight	17.97kg
Lean Meat	57.24%
Bone	12.84%
Fat	29.92%

Source: A trial conducted by The Meat Research Institute, involving 102 pure Colbred carcasses published in *Animal Production* 1980, 30:135-152.

Adult bodyweight:

Mature ewe	80kg
Mature ram	120kg

Outstanding Qualities

The Colbred transmits important qualities to its progeny, namely high prolificacy, high milking capacity, high growth rate and lean carcasses. It also possesses the ability to achieve high performance within a closed flock.



Cotentin

□ Description

A hardy, polled and light boned sheep of massive frame size and length. White head and face. A tight, heavy, white, longwool fleece of medium fineness.

▣ History

The Cotentin sheep originates from the Cotentin Peninsula in Normandy. The breed was established during the 19th Century by crossing local sheep with English, Kent, Leicester and Southdown and the present day breed was established about 1900. Since then, this has been further selected to produce the present breed characteristics. The first importation of Cotentin sheep into the United Kingdom was made in 1988 and the breed is becoming established in many parts of the United Kingdom and Ireland.

▣ Main Purpose of the Breed

The Cotentin breed is well placed to become an important terminal sire. The end product is a cross bred carcase of exceptional quality achieved through rapid growth rates. Such qualities of good conformation and low fat characteristics, are maintained up to high carcase weights which are often as high as 30kg. It is therefore eminently suitable for normal and heavy lamb production according to the type of ewe. Where the choice of the farmer is to cross further, the rapid growth rates and early maturity of lambs allows early breeding.

The breed has many other attributes which will earn it a place in the British farming scene. Originating from Normandy, it is no stranger to cold and wet conditions and the result is a hardy outdoor sheep of massive frame size and length where ewes weigh 80-90kg and rams up to 150kg. Unlike some other Continental breeds, it is both prolific, with lambing percentages around 185% and lambs easily. Cross bred lambs frequently weigh 7kg at birth but are easily delivered from all breeds including Mules, Swaledales, Blackface and other hill breeds, by virtue of their 'stream-lined' conformation. All lambs are well protected at birth by a fine fleece. The Cotentin sheep produces a heavy fleece of about 5kg for ewes and 7kg for rams. This high quality longwool is white with no black fibres and produces a useful addition to income particularly since this quality attribute is transferred to progeny.

□ General Information

Average Prolificacy:

Shearling ewes	140%
Mature ewes	185%

Average Birthweight of Lambs:

Singles	7kg
Twins	5kg

Carcase Weight of Lambs at Slaughter:

Carcase weight	16-30kg
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(Weight depends on many factors including breed and size of ewe). (MLC Grading of R3L achievable at 30kg).

Average Adult Bodyweight:

Mature ewe	80-90kg
Mature ram up to	150kg

Fleece:

Average Fleece Weight of Adult Ewe	4.9kg
Average Fleece Weight of Adult Ram	7.0kg
Average Staple Length	20.0cm
Fibre Diameter Mean	30 microns
Range	22-40 microns
Colour	White

□ Outstanding Qualities

Cotentin sheep generate income for the farmer from both lean meat carcasses and from a heavy fleece. It is noted for its suitability for modern boning out techniques as required by Supermarkets and is today's butchers' product.



Cotswold

❑ Description

The Cotswold is a large, polled, longwool breed. The head is carried well up, the back long, ribs well sprung, the frame and legs strong, giving an overall imposing appearance. The head has a pronounced forelock of wool and a white face, with dark skin on the nose. The high quality wool is white, lustrous and long-stapled.

❑ History

The Cotswold is a hardy longwool descended from the sheep that grazed the Cotswold hills in Roman times. It achieved outstanding success as a wool producer during the Middle Ages when Cotswold wool became a major export. The famous 'wool' churches built by wealthy wool merchants in the Cotswolds remain as evidence of the breed's medieval importance.

During the 19th Century the Cotswold reached its second golden age, this time as meat producer. Cotswold rams were widely used on other breeds and were exported all over the world. Experiments crossing with Hampshires and Southdowns produced the Oxford Down, initially called the Down Cotswold, and in Europe the Cotswold was used on North German Marsh sheep to produce the Oldenburg. At the beginning of the 20th Century, however, the gradual decline of the breed had commenced, resulting from changes in demand for meat and wool.

The breed is now in a much stronger position. There is an active breed society and increasing interest in the Cotswold's traditional qualities, with about 1000 breeding ewes in 100 registered

flocks. The revival of interest can be attributed not only to the fact that the Cotswold has characteristics that can suit the current market but also to its very definite appeal as an ancient breed that has stood the test of time.

■ Main Purpose of the Breed

Most Cotswold ewes are bred pure to produce pedigree breeding stock. The large pelvic structure makes for ease of parturition and a strong, vigorous newborn lamb. The ewes make excellent mothers and milk well, which together with the breed's qualities of hardiness, exceptional docility and longevity all help to reduce labour input and cost. There is also a good market for the larger, lean lamb. The Cotswold ewe crosses well with continental or down terminal sires for rapid growth rate, lean carcase and good conformation, producing a very profitable lamb.

The Cotswold ram, when used on upland ewes, has been shown to consistently sire strong half-bred ewes capable of producing large lean lambs. In addition to the benefits expected from the halfbred — rapid growth, prolificacy and improved conformation and milking ability — the Cotswold halfbred offers a number of others which help to reduce input costs: a low percentage of lambing difficulties, improved docility, superb mothering ability, hardiness, economy in feeding and an extra 1.5kg to 2kg of lustre-type wool.

Over the centuries natural selection has undoubtedly played a large part in the breed's development, leaving it very hardy and consistent. Originally bred and maintained to grow and thrive under the exposed conditions of the Cotswold hills, the breed's hardy, thrifty qualities are also being used to advantage today in conservation grazing.

As a longwool the Cotswold has the added bonus of a heavy wool clip: a high quality lustre fleece, generally with a Bradford count in the mid-40s, as well as a high quality lamb clip at six months if required. Until recently Cotswold wool was collected together with other lustre wools and used mainly for carpets, bunting and industrial cloth but it is now also being used alone very successfully for loose-twist worsted spinning and weaving into soft furnishing cloth.

■ General Information

Average adult bodyweight	Mature ram 140kg	Mature ewe 85kg
Average prolificacy	150-175%	
Average birthweight of the pure lamb	Single 6.5kg	Twin 4.75kg
Carcase weight of lambs at slaughter	16-23kg	
Fleece characteristics	Fleece weight, yearling ram: 10kg or more Fleece weight, average ewe: 6kg Staple length: 25cm	

The Cotswold Sheep Society provides pedigree registration and transfer services. Breeder workshops are held regularly and include carcase evaluation, ram assessment, lamb selection and fleece assessment. An official breed sale takes place each September.

Publications obtainable from the Cotswold Sheep Society, Holy Brook Cottage, Far Oakridge, Stroud, Glos GL6 7PG, teNax 01285 760455, include:

Flock Book: published annually, includes list of members, national flock census, show and sale results, lamb registrations, etc. £3.50 inc p&p (free to members).

The Cotswold Sheep: account of the breed from early times to present day. Superbly illustrated. £5.50 inc p&p.

Photograph: Yearling rams, by David Platt, from 'The Cotswold Sheep'.

The Cotswold Sheep Society



Dalesbred

□ Description

A hill sheep with black face and distinctive white mark on each side of the nostrils, with nose-end becoming grey; legs also clear black and white markings. Wool is plentiful with dense undercoat and curly on outside.

└ History

In 1930 a group of breeders in the western dales of Yorkshire formed an Association to fix the type of sheep they had been breeding for many generations. Dalesbred sheep are indigenous to the upper reaches of the Dales of North and West Yorkshire, North Lancashire and the part of Cumbria which was originally Westmorland.

□ Main Purpose of the Breed

In the stratification of the UK sheep industry the Dalesbred has a dual role. On its native hill ground it is mostly bred pure for three or four crops with the wether lambs being sold off the hill as stores, or increasingly finished at home. The majority of the female lambs are kept for breeding and then sold as draft ewes after three or four years lambing on the hill. They are mainly purchased by sheep farmers from lower down the valleys and are then bred three or four years more to provide halfbred breeding sheep which are in turn sold for use in lowland flocks.

During this second part of their lives on marginal land farms the Dalesbred is mated to Teeswater,

Bluefaced Leicester, and some European breeds of rams to produce Masham, Mule and Continental-cross halfbred gimmers, with the concomitant wethers providing a source of lean, meaty hoggets.

❑ General Information

On the high fell farms the lambs are born in April/May and spend all the summer on the fell, so are not mated as ewe lambs. As mature sheep they will produce 120-140% lamb crops on the hill, whilst on lower ground this will be enhanced to 150-180% depending on management conditions.

Dalesbred wether lambs and surplus gimmers will provide carcasses of 12-17kg, especially popular in the modern demand for smaller joints. As mature animals, the Dalesbred ewe will reach a live bodyweight of 45-60kg, with rams attaining 55-75kg depending on their environment.

Dalesbred breeders have always aimed to produce a quality of wool which would compete favourably with that of other hill breeds. Fleeces weigh from 1.5-3kg, grading at 40/32, which makes the wool very suitable for use in carpet-making and Scotch Tweed cloth.

All rams are inspected by a team of markers before being eligible for the breed register and, in addition to proximity to breed type, special attention is paid to such points as alignment of the teeth and shape of the feet.

A Flock Book is published every year listing the numbers of the ewes registered for each member by the breed inspectors, together with the pedigrees of all approved rams.

❑ Breed Development

Taking advantage of the developing technology in genetic profiling, the Dalesbred Association has now embarked on a programme of bloodtesting all the rams to be registered in the Flock Book, with the intention of eliminating those males who are deemed to be at most risk of contracting Scrapie; the long term aim being to have maximum Scrapie-resistance throughout the breed.

Derbyshire Gritstone



Derbyshire Gritstone

❑ Description

Clean cut black and white marked face and legs clear of wool. Polled in both sexes. The Derbyshire Gritstone is a handsome sheep of aristocratic lineage, big, flat bones, strong and alert.

❑ History

One of the oldest of British sheep breeds, a hornless breed in the hill classification. The breed originated on the hills of the Dale of Goyt on the fringe of the Derbyshire Peak District around 1750, and was known as the Dale of Goyt sheep.

Around 1906, the Derbyshire Gritstone Sheepbreeders Society was formed, publishing the first Flock Book shortly afterwards, listing 19 flocks of recognised Derbyshire Gritstone sheep. From the 19 recorded flocks came the foundation stock of the present day Derbyshire Gritstone. Registered flocks can now be found on the pennine districts of Lancashire and Yorkshire, in Cheshire, Wales, Scotland and in its native high peak of Derbyshire.

❑ Main Purpose of the Breed

Bred to be adaptable to the difficult and rigorous environment of wild, rugged country up to 2,000 feet above sea level, the Gritstone has a capacity to thrive and produce lively lambs which on ewes with good mothering qualities and milk flow have a relatively rapid growth rate and high survival traits. The mothering quality and prolificacy of the ewes, coupled with the hardy and

thrifty nature, passes to their offspring to make the ideal crossing ewe for lamb production. The Gritstone crosses well with other hill breeds, improving both carcase and wool. It crosses well with Continental breeds to impress with size, shape and hindquarter development. The Derbyshire Gritstone grows a good quality weatherproof fleece. The fleece clips at 5 to 6lbs (2.27 to 2.72kg) weight with a definite staple formation of medium length of 52's to 56's quality count suitable for the manufacture of high class knitwear.

❑ General Information

Almost all pure bred Gritstone flocks spend their entire life on the hill, they come in bye for tupping in November with the ewes at a recorded bodyweight of 140lbs (63kg) up to 164lbs (74kg), they return to the hill until lambing in April.

Derbyshire Gritstone flocks running on land which is beyond management improvement produce a crop of lambs at around 40lb (18kg) of red meat in 16 weeks, lambs run as stores on dairy land improve the pasture and before they have to compete with the cows for spring grass, find a sound market at 48 to 51lbs (22 to 23kg) in January and February. Wether lambs have a good Christmas market at 44lbs (20kg). Comparing well with other hill breeds of like stature it gives a clean, lean meat desired by the retail trade. It does produce lamb meat in quantity with an accepted lambing percentage of 130%.

Recorded facts on a pure bred commercial hill flock have shown a lambing percentage of 145 to 156% with a birthweight of lamb at 10.8lbs (4.9kg), twins at 7lb (3.18kg) growing to the popular housewife carcase weight of 40lbs (18.4kg) in 16 weeks on the hill, speeded to a shorter time on low ground. In an MLC recorded flock on land at 1,000 feet, lambs born live to ewes have ranged from 150 to 177%, they have grown for market between 10 to 15 weeks with liveweights to 89lbs (40.35kg) and a carcase weight of 47lbs (21.34kg).

Good management of grazing and the right use of sires on the right ewes bring quick finishing lambs. Drafted to the lowlands, the sheep will produce twin lambs at an economical price. In Wales, Derbyshire Gritstone rams on Beulah Speckled Face ewes have increased lamb size from 33lbs (15kg) to 44lbs (20kg) and with leaner carcase.

In recent years, the Derbyshire Gritstone has taken on a new and important role as the sire of polled lambs on other breeds of horned hill ewes in the North of England, Scotland and Wales. Since the polling of horned hill ewes became a viably commercial prospect under the EEC headskinning regulations and by contributing to the eradication of headfly disease, the Derbyshire Gritstone ram can be used as the polling factor with successful results. The role of the Derbyshire Gritstone may well have quite an impact on Britain's sheep flocks of the future.

Devon Closewool



Devon Closewool

□ Description

The Devon Closewool is a medium sized, white faced, hornless sheep with a dense white fleece of medium length and staple which contributes to its valued quality of hardiness.

└ History

The breed society was established in 1923 but the breed itself has existed for well over a hundred years with the oldest registered flock celebrated its centenary in 1994. The Devon Closewool's original home was Exmoor and its borders and although North Devon remains the stronghold of the breed it is now spread throughout Cornwall, Devon, Somerset and parts of Wales. Regular Autumn registered breed sales are held in North Devon and West Somerset.

└ Main Purpose of the Breed

The Devon Closewool is primarily a grassland sheep well suited to the exposed uplands of its native heath where its hardiness allows it excellent livability, and the capacity to thrive where many breeds would die. Many flocks live entirely in grass and long fodder all the year round and under commercial conditions very little hand feeding is required. They are, however, well suited to housing for lambing with the young lambs showing inherent hardiness qualities upon turnout, including the ability to resist the driving Atlantic wind and rain familiar to North Devon and Exmoor.

The pure bred lambs will readily fatten off grass and supply ideal Spring/Summer lamb by three months of age. The ewes crossed with rams of Down or Continental type produce ideal cross-bred lambs for early finishing, making good weights quickly and without concentrate feeding.

A good quality fleece is produced, very suitable for blending and with a wide range of commercial uses including hosiery, fabrics and tweeds. Fleece weights of up to 4kg (ewes) and 6kg (rams) are obtained.

Rams of the breed are valued by flockmasters of other white faced breeds for lending 'substance' and hardiness in improvement programmes.

The Down Closewool female provides a top quality halfbred ewe when mated to the Bluefaced Leicester ram and shearling ewes of this cross have regularly topped the market at West Country sales in recent years. These halfbreds thrive well in varied climates and farming systems, are excellent mothers, milk well, are prolific and durable, and produce first class market quality lambs when mated to the recognised terminal sires.

Halfbreds from matings with Suffolk, Texel and Border Leicester are also popular.

☐ General Information

Average Prolificacy:

Shearling and Mature ewes 160%

Average Birthweight of lambs:

Singles 3.5kg

Twins 2.5kg

Ideal Carcase Weight of lambs at slaughter:

Carcase Weight 18.5kg

Average Adult Bodyweight:

Mature ewe 55-60kg

Mature ram 90kg

The Bluefaced Leicester x Devon Closewool halfbred tup crossed to a terminal meat sire will regularly produce lambing percentages of 200% with the offspring providing excellent carcasses in the 18.5kg d.c.w. range.

☐ Outstanding Qualities

Hardiness, economical feeding, easy-care foundation breeders with the capacity to produce a top flight halfbred ewe. Devon Closewool and Devon Closewool Halfbreds are sheep bred in the West Country for West Country conditions.

Devon & Cornwall Longwool



Devon & Cornwall Longwool

❑ Description

Head: Well covered with long curly wool. Both sexes are polled.

Body: Well covered with long curly, white wool. Well proportioned with a strong wide and long top, with well sprung rib giving plenty of volume. The rear being well muscled with good conformation.

❑ History

The The Devon & Cornwall Longwool Flock Book Association was formed on 1st January 1977, following the amalgamation of the South Devon Flock Book Association and the Devon Longwool Sheep Breed Society. Although the breeds had been in existence for well over 100 years in the West Country, there were slight differences between the two, especially in the 1900's. The South Devon was the larger and most commonly found in South Devon also East and South Cornwall. Whereas the slightly smaller Devon Longwool was found in North Cornwall, North Devon and South Somerset. Since the 1900's the breeds have gradually become more alike, finally to the extent that the amalgamation was both desirable and practical for all the breeders. Devon & Cornwall Longwool Sheep have been exported to South Africa in 1957 and most recently to Holland.

❑ Main Purpose of the Breed

The Devon & Cornwall Longwool produces a good carcase of meat plus a heavy fleece of

quality wool, either on grass or when folded on fodder crops.

In its native South West it is often used to produce hog lambs which are then finished on fodder crops for the profitable late winter market prior to the appearance of new season's lambs.

Wool: The quality and quantity of wool, with an average staple length of 18in is such that lambs are shorn when six months old. Average fleeces weigh between 8 and 9kg, but can be up to 18kg. Used by major carpet manufacturers for its hardwearing qualities.

❑ General Information

Prolificacy:

Breed Average (on grass) 160%

Average Birthweight of Lambs:

Singles 6kg

Twins 5kg

Average Killing Out Weight: 18-21kg

Carcase Grading: EUR's 2, 3L, 3H

Average Adult Bodyweight:

Mature ewe 100kg

Mature ram 136kg

❑ Outstanding Qualities

The Devon & Cornwall Longwool is ideally suited to the West but can be found in other parts of the Country, it is an easy grazer with a very docile temperament. The versatility of the breed can be illustrated in many ways:

- i) Kept pure for breeding replacements.
- ii) Surplus ewes crossed with any terminal sire will produce quality early fat lamb.
- iii) Crossed with a Dorset Horn — a ewe is produced that will naturally lamb out of season.
- iv) Crossed with a Suffolk, Border Leicester, Cheviot or British Milk Sheep — a prolific halfbred ewe results ideal for early lamb production.

❑ Official Show & Sales

Devon & Cornwall Longwool's can be seen at Agricultural Shows in many parts of the Country. The main show and sales are held in August and September. A list of breeders, membership details and any other information may be obtained from the Breed Secretary: Mary Cory, 'Beckaveans', Jacobstow, Bude, Cornwall EX23 0BL.



Dorset Down

❑ Description

The Dorset Down is an active, medium sized short woolled sheep. Strong legs support a deep chested, long sheep with well fleshed hindquarters and fine wool.

❑ History

The Dorset Down resulted from work carried out by two Breeders, Mr Homer Saunders of Watercombe and Mr Humphrey of Chaddleworth during the latter years of the last century. They independently improved the indigenous Down sheep by crossing Hampshire and Wiltshire ewes with pure Southdown rams. These improved sheep were introduced into the Down flocks of Dorset where they thrived. Their subsequently popularity led to the formation of the Breed Association in 1906. There are currently 48 Flocks containing over 2500 ewes spread throughout the British Isles.

❑ Main Purpose of the Breed

The Dorset Down is a terminal sire and has no equal for early maturing lamb production, producing excellent succulent carcasses, regardless of the sex of the lamb. The Dorset Down ewe is very adaptable and, being able to take the ram in every month of the year, can be kept as a crossing ewe, as well as pedigree, lambing for the lucrative Easter market in December and January, allowing intensive use of grassland during the peak growing months.

❑ Outstanding Qualities:

Carcase Conformation: The carcass conformation with fine bones and shoulders, well fleshed with an outstanding leg, is ideal both for the home and the export trades. The loin is perfectly covered, with a full eye of meat which is renowned for both flavour and texture.

The rapid economical maturity produces a tender, delicately flavoured carcass, meeting the exact requirements of the marketplace in record time. This also means a minimal risk of lambs approaching anything like 12 months at slaughter.

Mating: Dorset Down rams can be used with confidence on any breed of ewe. Difficult lambing cases will be eliminated, even when used on ewe lambs or small hill breeds because of the small head and shoulders. The lambs are very hardy at birth — full coated, lively, vigorous and ready to suckle. It has been found that the Dorset Down on the smaller hill breeds of ewes produces the ideal small carcass for the mediterranean trade.

The rams will work at any time of the year and, as they have an exceptionally high pheromone count, also make excellent teasers.

The Dorset Down ewe will take the ram in most months of the year and is a good, honest, easy to manage sheep. They are apparently unaffected by extremes of temperature and, being docile and biddable, are adaptable to all regimes including close housing, paddock grazing and set stocking behind electric fencing. It is an ideal smallholders sheep suitable also for orchard grass management. It is not unusual to put 50 ewes to one ram, which is capable of effectively serving 20 ewes in 24 hours.

Fleece: The wool is short and of fine texture in mature sheep, whilst good tight wool on the lambs resists bad weather. Fleece weights range up to 2.2kg washed (2.45kg greasy). The British Wool Marketing Board classes Dorset Down wool as one of the highest grades; considerable quantities going to the hosiery trade. A number of top prizes have been won in competitions and in 1996 the 'Wool' flock won the coveted 'Wool Producer of the Year' Competition — the supreme accolade.

❑ Breed Development

Breed improvement in recent years has led to longer, leaner carcasses from early maturing lambs reaching optimum weights of 17-20kg in about 12 weeks whilst good single lambs will often finish in 10 weeks. The Breed Association recognises the importance of recording and apart from individual Flockmasters maintaining their own records, the Association approves and registers every pedigree ewe and ram retained for breeding by an official tattooing system. The Flock Book contains such information.

❑ Shows and Sales

The Dorset Down appears at most of the Agricultural and Primestock Shows both in breed classes and in open competition with other breeds and crosses. Whilst rams are available at most of the major sheep fairs, many Breeders prefer to sell direct from their farms, encouraging purchasers to visit and inspect the rams prior to buying.

❑ Further Information

A list of Breeders, membership details and other information is available from the Breed Secretary

Dorset Horn & Poll Dorset



Dorset Horn & Poll Dorset

Description

Ewes are of medium size and are naturally prolific, skin colour is pink whilst the face, legs and ears are white.

Rams show a bold masculine appearance and also carry good fleshing throughout.

The wool of both the Horn and Poll is of the highest quality, not only is it fine and densely grown but is particularly white which helps it find a ready market in times of plenty.

History

The Dorset Horn breed is one of the oldest British breeds, the first Flock Book being established in 1891. The Poll Dorset type originated in Australia and the British Polls have been bred from the rams imported into this country. This development of the breed continues with the use of semen from Australia and New Zealand where the Poll Dorset represents a major portion of sires for superior carcasses. Since the early 1900's the breed has spread throughout Britain and more recently into Europe displaying an ability to cope with very varied climatic conditions.

❑ Main Purpose of the Breed

Where a flock lambs frequently the ewes are maintained on the basis of three crops of lambs in two years lambing in September, May and January then back to December again. There are various modifications of this plan which can be made to fit in both with market demands and farm-policy. Indeed, with the Dorset Horn and Poll Dorset ewes the flockmaster's programme can be widely elastic. There is no need to be tied to any particular lambing season.

There is another advantage, namely that young ewes can be bred from at an early age. There is certainly no real need to wait until they are the more usual two years old before producing their first crop of lambs since many flockmasters nowadays obtain their first crop from them at 15-18 months old.

The ease of breeding is also reflected in the rams which are noted as being especially active workers for the whole year against most native breeds which have a dormant period.

Increasingly today with the breeders awareness of carcase quality the rams play an important role as prime lamb sires.

❑ General Information

Average Prolificacy:

Ewe lambs	125%
Shearling ewes	150%
Mature ewes	170%

Average Birthweight of lambs:

Singles	4.75kg
Twins	3.75kg

Carcase weight of lambs at slaughter: 15-22kg

Average Adult Bodyweight:

Mature ewe	85kg
Mature ram	120kg

The breed is also recognised for its docility and outstanding milking ability. The high solids of the milk together with this plentiful supply largely explains the high growth rate of the lambs and its ability to rear twins well.

❑ Outstanding Qualities

Within the sheep industry the Dorset Horn and Poll Dorset's outstanding characteristic has to be the ewe's ability to breed at almost any season of the year. In this respect the Dorset Horn is unique so far as British breeds are concerned. Moreover the capacity to breed any time throughout the year can be utilised in order to obtain crops of lambs more frequently than once annually. This in turn helps satisfy a growing consumer demand for fresh quality lamb all year round.

With increasing interest from the commercial producer to have a percentage of ewes lambing early by using the Poll Dorset ram he is able to produce his own replacements with this natural ability avoiding the cost of using artificial means. The added bonus is that his male lambs will produce a quality carcase at no extra cost.

As a breed the Dorset Horn and Poll Dorset has proved to be very adaptable to a wide range of conditions and is well suited to housing and environmentally friendly extensive all grass systems.

Est à Laine Merino



Est à Laine Merino

❑ Description

The Est à Laine Merino is an attractive, strong, large framed sheep with very fine wool. The head is long, white in colour with long ears. The sheep is naturally polled. The neck is clean with no folds or dewlap.

❑ History

The first Merino sheep came from a small tribe in North Africa which was conquered by the Spanish. The breed then moved to France because of royal family links between the two countries. At the end of the 18th Century Merino blood was introduced into German sheep in the borders with France and gradually these large 'meat' Merinos were kept in large numbers in the Alsace Lorraine region of France. This strain became known as the Est à Laine, which translated means East and Wool. The breed was first imported into the UK in 1989.

❑ Main Purpose of the breed

The price structure for fine wool will make its production a viable project, so long as carcass quality and prolificacy are not sacrificed as a result. The Est à Laine's main purpose is to inject fine wool characteristics into some of our native breeds. By retaining halfbred Merino females, farmers will gain extra income from their wool clip from a strong, prolific ewe with good carcass qualities.

Merino ewes can breed all year round naturally, without the use of hormones. As welfare issues and the desire to produce lambs away from the oversupplied summer months become more important for increased profits then a sheep that can lamb out of season will be essential.

The size and style of the Est à Laine sets it apart from other fine wool breeds. It has an exceptional ability to make use of poor quality roughage and it is hardy and able to withstand severe weather conditions. They are strong and can walk long distances.

General Information

Average Prolificacy:

Ewe lambs	130%
Adult ewes	170% (average over all seasons)

Average Growth of Lambs:

	<i>Growth 10-30 days g/day</i>	<i>Growth 30-70 days g/day</i>	<i>Lamb weights at 70 days/kg</i>
Single males	352	410	31.8
Single females	317	338	27.8
Twin males	302	384	29.0
Twin females	268	330	26.5

(Source: ITOVIC)

Carcase Characteristics:

The pure bred Est à Laine Merino produces uniform lean carcasses of moderate conformation from 19-22kg. When crossed with a meat sire, eg Charollais, growth rate and conformation is improved to produce an ideal carcase.

Wool Characteristics:

The wool is fine, 18-23 microns, Bradford Count 80's to 64's. Good crimp and uniformity. No kemp or black fibres. Classified Fine Grade No. 1 and 2 by the British Wool Marketing Board. Fleece weights: Rams 6.6kg-7.5kg and ewes 4.5kg-5.0kg.

Average Adult Bodyweight:

Rams 130kg, ewes 90-110kg. Despite their size the sheep are docile and easily handled.

Breed Developments

Est à Laine Merino rams were used in the formation of the Lomond halfbred ewe. This ewe now forms the backbone of the Scottish Fine Wool Project. Also cross breeding programmes are being undertaken with Shetland, Cheviot, Blackface, Corriedale, Exmoor Horn, and Swaledale with outstanding results. Wool fineness is the most highly heritable fact and the improvement in the first cross on wool has meant an increased return of up to £5 per fleece. Higher lamb weights have also been achieved with better returns from wethers.

Exmoor Horn



Exmoor Horn

❑ Description

The Exmoor Horn is white faced, with horns, cherry coloured skin and a white fleece of medium length and good quality.

❑ History

The Exmoor Horn sheep of today are direct descendants of the horned sheep that roamed Exmoor for centuries. The Breed Society was formed in 1906.

❑ Main Purpose of the Breed

Exmoors can be fairly described as dual-purpose sheep. Being an excellent grass sheep, they are very hardy and cheaply maintained, and are therefore an ideal breed to keep pure on the highest moors. They are quite rightly classified as a hill breed. They are among the most prolific of all hill breeds, being excellent mothers and very good milkers, producing a quality upland lamb.

The draft ewes, when taken to better ground, produce a higher lambing percentage. They are also one of the few hill breeds to produce wool of a very fine quality.

The Exmoor Horn is an excellent crossing ewe. A large percentage of the flock are crossed to breed a halfbred ewe that is much in demand by lowland sheep producers looking for a prolific ewe capable of providing prime lamb for the modern market. The majority of these halfbred ewes

are Exmoor Mules, sired by the Bluefaced Leicester. This cross is considered to be one of the finest halfbred ewes produced in this country.

The Border Leicester has also been used on the Exmoor Horn for many years with great success. Draft ewes, purebred crossbred lambs, are sold at various Exmoor markets throughout the Autumn.

❑ General Information

Average Prolificacy:

Ewe lambs	not usually lambed
Shearling ewes	120-130%
Mature ewes	135-150%

Exmoor Mules:

Bred by a Bluefaced Leicester ram out of an Exmoor Horn ewe.

Prolific: Percentage 160-200%.

Long Productive Life: Hard wearing ewe that holds its teeth.
They will thrive from sea level to 1,500ft.

Maternal Abilities: Excellent mothers.
Very milky ewes, which give lambs an excellent start.

Crossed with Terminal Sire: Produce lambs 18-22kg
2-3L fatness
U+R conformation

Adaptable: Easy to keep in bounds, being of quiet temperament.

Locally Bred: There is less risk of bringing in disease.

Hard Feet: Very little trouble.

Lower Flock Depreciation: Long life, lower replacement cost compared with sheep brought in from other parts of the country, which is the biggest cost in flock gross margins.

Major Autumn Sales of locally bred sheep are held at various Exmoor markets.

❑ Further Information

For details of the breed, and for the sales and dates please contact the Secretary: Mrs Hazel Leeves, Exmoor Horn Sheep, Breeders' Society, Selworth Farm, Minehead, Somerset TA24 8TL. Tel: 01643 862577.



Friesland

❑ Description

The Friesland is a large-framed animal with rams weighing up to 120kgs. In common with all dairy animals it possesses extremely good length, a large roomy pelvis, narrow head and fine-boned limbs. The breed is naturally polled and has a long bald tail.

The fleece is pure white and of high quality, medium staple fine wool, yielding up to 5kg, usually graded by the British Wool Board as Bradford Count 48-52. Peter Mummery of Chilli Farm, Coldred, Nr Dover, was the first Flockmaster to select and improve the breed for commercial requirements rather than for research reasons. With selection and culling, using all the breeding lines available to him, Peter was able to establish a line that could survive in the harsh commercial conditions that the shepherds in East Kent required for their crossing sires.

By 1980 when the British Friesland Sheep Society was formed there were between 400 and 500 registered ewes. The dairy potential of the breed was becoming apparent. Rapid expansion took place during the decade. From 1985 to the present time various importations of rams with milk records behind them have taken place from Holland and Germany, also semen from Switzerland.

❑ History

The earliest recorded importation of Friesland sheep to these islands was that of five Dutch East Frieslands in 1953. In 1964 the nucleus of the British Friesland Breed was established when Brian Cadzow of Glendevon Farms, West Lothian imported a further five rams and fifteen ewes.

These rams and ewes all came from Germany, and were known in the sixties and seventies as Westphalians.

The establishment of the United Kingdom Flock took many years of pioneering work. From 1953 to 1970 breed numbers remained low and the Friesland was explored purely for hybrid breeding. The Animal Breeding Research Organisation (ABRO) maintained a flock of Frieslands alongside the small imported flock kept by Glendevon Farms. From the original imported ewes none were made available to the public until 1974 when the first and only dispersal sale took place at Glendevon Farms.

❑ Main Purpose of the Breed

The British Friesland Sheep has two main virtues, prolificacy and milk yield. Prolificacy is a characteristic of other breeds, notably the Finn and the Romanov but it is not always accompanied by sufficient milk to rear multiple lambs. In the Friesland, however, these two characteristics are combined.

The nature and temperament of the Friesland makes her ideally suited as a dairy ewe, and at the same time she passes her milky characteristics and prolificacy to her halfbred daughters.

Among European sheep breeds the Friesland is capable of the highest milk yields and yields up to 1000 litres in a lactation have been recorded from exceptional animals under top quality management. More usual yields are between 250 and 400 litres. However, it must be borne in mind that the Friesland, like a high yielding dairy cow, requires good feeding and management, the best ewes will milk for 7-8 months or longer.

As a dairy ewe, but also as a lamb rearer, the Friesland has one important characteristic, the ability to respond to good grazing at any stage in its lactation. In this respect it differs from most British breeds which at a certain point in their lactation will respond to good feeding not by increased milk production, but by putting fat on their backs.

Quite apart from its role as a dairy ewe the Friesland plays an important role as a crossing breed to produce cross bred ewes whose prolificacy and milkiness exceeds that of the pure breed, be it Texel, Romney, Dorset, Suffolk or Exmoor. These cross bred ewes are capable of rearing multiple lambs and the increased growth rate of their progeny is clearly apparent. While not as widely distributed as the Welsh Mule or North County Mule, these cross breeds have staunch supporters among flock owners, and particularly among early lambing flocks, for the Friesland is a breed which cycles from August through until April or May. Thus it reinforces rather than dilutes the early lambing characteristics of such a breed as the Dorset Horn.

It is this combination of dairy ewe par excellence and sire of top quality cross bred ewes which makes the Friesland breed unique.

❑ General Information

Adult bodyweight Rams above 75kgs
 Ewes 50-55kgs

Prolificacy Ewes averages over four years from 238-249% from 7,701 lambings.
 Ewe lambs — 179-187% (BFSS records 1985-88)

❑ Breed Developments

The British Friesland Sheep Society is now working towards developing Milk Production Records of both quantity and quality. Some members have undertaken authenticated recording with the National Milk Records. These records are still at an early stage, but over the next few years statistical data of a thorough and proven nature should become available.



Gotland

□ Description

Fine-boned and of medium size. Hornless black head, free from wool, sometimes with white markings. Bold eyes, alert medium sized ears. Small, neat muzzle with even jaw. Slender neck and shoulders set smoothly into a level back with generous length, good depth and reasonable breadth of body. Slender black legs well spaced and upright. Short hair-tipped tail. Dense long lustrous grey fleece, occasionally black, white or brown. Clearly defined even curl and staple, soft handle. Calm friendly disposition.

□ History

The modern Gotland has ancestry in common with Finn and other northern short tail breeds of sheep. It is the most numerous breed in Sweden.

In 1972, Gotlands were imported to Scotland for a furskin enterprise. From the original importation small Gotland flocks are now scattered throughout Scotland, England and Wales. A further importation was made in 1984. There are now about 90 flocks. A British Flock Book has been maintained since 1983.

□ Main Purpose of the Breed

Gotland Fleece: Yield is approximately 3-3.5kg. The fine fleece, silvery grey, lustrous and curly is versatile and very warm. Spun yarn can be used to make soft, delicate garments or weather-

proof outdoor wear. If dyed, very subtle modified shades are obtained. The fleece is also valued for fulling and making felt.

Gotland Furskin and Pelts: Curl, lustre and size make Gotland skins unique. Skin quality is at its best, with fleece showing true character and style, when the lambs are five to six months old and ideally ready for slaughter. Soft, suede textured, factory-processed furskin with short, silky, astrakhan-like curls is produced from the best five to six month old lambs. It is used to make luxurious Gotland sheepskin garments — waistcoats, jackets, hats — and soft toys. Full and half length fleece pelts, home or factory processed, make decorative, practical and warm snuggle rugs, furnishing and floor rugs.

Gotland Meat: Lambs grow fast and can reach 30-38kg by six to seven months old. The meat is lean, tender, and close grained with a rich flavour. When run through the winter as stores has the yearling hoggets of 40kg and over yield even more delicious meat and larger pelts.

❑ General Information

Gotlands are successful in most locations from lowland to hill and moorland. Having a quiet, friendly disposition, they are very easy to handle and adaptable to different management regimes. Prolific, milky and very motherly with easy lambing, their pure bred Gotland lambs are born with a lush black birth coat and a high survival rate. They are very active and quick to suck, with rapid summer growth to 30-38kg at four to six months.

The Gotland ewe's qualities make her particularly suitable for crossing as part of a commercial system, as the halfbred ewe is a prolific and milky mother of fast growing meat lambs when put to a British or Continental terminal sire.

<i>Prolificacy:</i>	200%
<i>Optimum birthweight:</i>	3.5-4.5kg

Finished lean slaughter weight at four to six months: 30-38kg

<i>Mature bodyweight:</i>	
Ewes	55-70kg
Rams	75-85kg

<i>Approximate weight of fleece:</i>	
Mature ewe	3-3.5kg
<i>Staple length:</i>	13-18cm

❑ Breed Developments

The value of the Gotland's lustrous furskin in attractive shades of grey has led to a continuing programme of selection and development in Sweden and their introduction to Denmark, Norway, the Netherlands and New Zealand.

Here in Britain they are developing and becoming appreciated as a genuinely multipurpose long-wool sheep, yielding good flavoured close-grained meat, furskin, and a soft, silky lustre fleece.

For availability of breeding stock, please contact the Secretary of the British Gotland Sheep Society.

Greyface Dartmoor



Greyface Dartmoor

□ Description

Nose: Nostrils spotted or mottled with black or grey; eyes bright; head medium, flat between ears, well covered with curly wool. Normally polled.

Ears: Medium length, thick, covered with smooth white hair, if they have a few black spots so much the better and can be tanned coloured inside.

Neck: Arched and strong.

Shoulders: Fairly wide, sloping into deep, wide breast.

Back: Straight and level, loin wide, thick and flat, with broad tail.

Legs: Straight, short, placed well apart with good bone, hind legs covered with wool.

Feet: Mottled to match face.

Fleece: Uniform cover of long curly lustre wool of wide staple and good quality.

□ History

Descended from the original moorland sheep, the Dartmoor was 'improved' during the 19th Century by crossing with the local "Notts" longwool, and the Leicester.

└ Main Purpose of the Breed

Dartmoor ewes are now principally put to Down or Continental rams to produce prime lamb. The

ewes are good mothers, heavy milkers which encourage good strong growth in their lambs. The carcase produced is remarkably lean and the meat extremely juicy with no excess fat.

The Dartmoor was kept for its quality fleece, a yearling ram can yield a fleece weight of 11.7kg (26lbs) and a yearling ewe 7.7kg (17lbs), with an average staple length of 9in. The wool has a Bradford Count of 34-38 and marketed for the manufacture of blankets, serges and carpets.

Dartmoor rams have developed to withstand the local moorland climate and weather conditions and can be used to improve the constitution of other breeds.

❑ General Information

Average Prolificacy: 150%
Normally slaughtered off grass at 17-20kg deadweight
Average Adult Bodyweight
 Mature ram 102kg
 Mature ewe 64kg
No. of Registered Flocks: 184 (1998)
No. of Ram Lambs registered: 61 (1997)
No. of Ewe Lambs registered: 569 (1997)

The Greyface Dartmoor is on the Rare Breeds Priority List **Category 4** (at risk).

❑ Outstanding Qualities

Docile by nature the breed has proved popular with the smaller flock owner.
The Dartmoor responds to kinder, lowland conditions where she can achieve her full potential.

❑ Official Shows and Sales

The breed can be seen locally in the South West at all the major County shows in their own classes. A strong presence in the West Midlands and Welsh Border Counties has achieved dedicated classes for Greyface Dartmoor sheep in a number of County shows in the region. Elsewhere the Greyface Dartmoor will be found in the mixed rare breed classes.

A number of farm parks also keep small registered flocks of Greyface Dartmoors.

Official ram sales are held at Plympton in early August and at Stoneleigh in September.

Further information on Membership and the Greyface Dartmoor can be obtained from the Breed Secretary.

❑ Flock Book

The Dartmoor Sheep Breeders' Association was formed in 1909. Some flocks can trace their existence for over a century. To ensure the breed retains its characteristics an annual inspection of all lambs takes place during the autumn at centres across England and the south of Scotland, prior to registration in the Flock Book. All registered sheep are identified by the Association's metal ear tags. All carry the initials 'D.M.'

Hampshire Down



Hampshire Down

❑ Description

Face and ears are a rich dark brown, approaching black, with wool over the poll and forehead. Wool is white with an average staple length. Body deep and symmetrical with ribs well sprung, broad, straight back, flat loins, wide rump and deep heavily muscled hind legs and breast. Legs being strongly jointed and powerful are set well apart.

❑ History

Hampshire Down flocks were established more than 150 years ago. The breed originated by crossing the Wiltshire Horn and the Berkshire Knot with the South Down. These flocks became very important in maintaining fertility on the thin soils of Wiltshire, Hampshire and Berkshire and were numerous across the whole of the South of England. There were massive sales at Wilton, Overton, Weyhill and other fairs with as many as 20,000 at each one.

❑ Main Purpose of the Breed

The breed has been developed to provide terminal sires for commercial flocks. Hampshire Down sired lambs are early maturing quality butchers' lambs. Many pedigree flocks are Signet recorded and scanned to encourage the breeding of lean fast-growing sheep. This gives the commercial flockmaster the opportunity to use high growth-rate, lean producing rams.

❑ General Information

Hampshire Downs lamb naturally in December with a lambing percentage of around 150-180%. The lambs are very robust and hardy being able to withstand most climatic conditions from a very early age. They are extensively kept both on pastures and uplands and will finish on grass quickly with no concentrates. From birth a Hampshire Down crossbred lamb will reach 18kg deadweight in under three months.

The carcase is well fleshed with one of the highest eye muscle scores of any breed. Usually grading extremely well, the modern Hampshire has been selected to pass on its characteristics plus leanness to its progeny whilst retaining the excellent succulence and flavour for which the breed is renowned.

The ewes last well and regularly lamb for up to 10 to 12 years. Hampshire Downs will take the ram at any time of the year, therefore three crops of lambs can be obtained in two years. One of the most important characteristics is outstanding food conversion which enables it to survive well in marginal grass conditions.

Hampshire Down wool is white, average staple length 9cm, dense and fine texture, being graded to 56-60's (Bradford count). Rams clip about 6.75kg, yearling ewes 4.5kg and older ewes 2.7kg of wool. The principal use is for fine felts and blending with other wools owing to its good wearing quality.

Hampshire Downs are regularly exported to Europe where numerous flocks exist. In particular many flocks are to be found in the Netherlands, Belgium and France. The breed is particularly valued there because of the high quality quick maturing lambs and the ability to survive both in extremes of cold as found in the Massif Central in France and of heat as experienced by a continental summer, without shelter. World wide Hampshires are to be found in over 40 countries.

All sheep are inspected by the Association's official inspectors before shipment for export.

Average prolificacy	Ewe lambs 110%	Ewes 150-180%
Average birthweight	Singles 4-6kg	Twins 3-4kg
Average adult bodyweight	Ewes 80kg	Rams 120kg

❑ Breed Development

The launch of a Breed Improvement scheme, in partnership with Signet, together with continuing central National and Regional Ram Lamb Performance tests (recorded by Signet and DANI) helps keep the breed to the forefront in satisfying the demands of both the discerning consumer and supermarket buyer. The winner of the most recent (1997) Test (pictured) achieved a growth rate of 500 grams per day with a loin muscle depth of 37mm and 60.5kg liveweight at just 129 days of age. The Hampshire Down Sheep Breeders' Association's newly commissioned computerised Flock Book simplifies the recording and tracking of leading blood lines within the breed and complements the BLUP and Performance recording schemes in general breed development. A recent importation of Hampshire embryos from the leading flock in New Zealand has also widened the gene pool available to breeders.



Hebridean

□ Description

The Hebridean is a small, hardy breed with fine bones and a tail reaching no lower than the hocks. Ewes weigh 38-40kg and rams 50-55kg. Both sexes are horned, and about 10% of animals have four or more horns. Occasionally polled ewes are to be seen but these are genetically four-horned and usually produce horned lambs. The animals are entirely black, though the fleece usually goes grey with age. Lambs may have a dark brown appearance because the tips of the fleece have been bleached by the sun. The wool has a relatively long staple and a stiff, springy quality. It sheds water easily. The face and legs are free of wool. An adult fleece weighs about 1.5kg and has an average Bradford Count of 48-50. Ewes lamb very easily. Although pure bred twin lambs weigh 2.5-3.0kg each at birth, lambs produced by crossing with terminal sires are in the range 3.5-4.5kg for twins, yet intervention is rarely required. Lambing percentages depend upon the management system and grazing available: for mature ewes, typically 175% for lowland flocks and 120% for upland. The Hebridean is a very active and long-lived sheep, ewes often still lambing well at ten years or more. It thrives on all types of grazing and responds well to all management systems.

□ History

This ancient breed of native sheep, originating from Scotland and the Western Isles, is thought to have descended from Viking animals and belongs to the group of North European short-tailed breeds. Once the common breed in the West of Scotland, it was superseded by the Blackface. The

sheep survived to the 20th Century largely as parkland flocks in country estates where they were cherished both for their attractive and striking appearance and for their ability to fend for themselves with minimal, if any, management. Once a rare breed, numbers have increased dramatically during the last ten years; in 1998 there are about 2,800 breeding ewes. Today, there are flocks throughout the UK and, once again, Hebridean sheep are to be found on the Hebrides.

❑ Main Purpose of the Breed

The Hebridean breed has three principal roles.

The ewes are cost efficient sheep for producing prime lamb when crossed with any terminal sire breed. They are of special value in extensive, low management systems. Cross-bred lambs finish at 33-37kg liveweight; the typical conformation is R3L. Average overall growth rate is 0.22kg per day.

Pure bred lamb or mutton has a distinctive and exceptional flavour. It has a dark colour and very little fat cover. Early trials indicate lower cholesterol and saturated fatty acid values than conventional meat lambs (RBST/SAC results). Some flocks are dedicated to supplying this premium, specialist market.

❑ Outstanding Qualities

The breed has an unrivalled reputation for conservation grazing and large numbers are used, for all or part of the year, on a variety of sites throughout the UK. Of particular note is the Hebridean's ability to graze purple moor grass (*Molinia caerulea*) and birch scrub in preference to heathers, so assisting in the regeneration of moorland, both upland and lowland heaths. Studies have shown that Hebrideans will graze purple moor grass sufficiently hard to cause its death in two or three seasons, yet leave the heather tips relatively untouched (Newborn et al. Grazing and the control of Purple Moor Grass, *Game Conservancy Council Review*, 1992; <http://www.enterprise.net/wildlife/lincstrust/>).

❑ Further Information

Breed and Registration Society: The Hebridean Sheep Society, Knox Mill, Harrogate HG3 2AE.
Tel: +44 1423 507741. E-mail: Heb.Soc@btinternet.com
www.btinternet.com/hebridean.sheep



Herdwick

❑ Description

White head and legs. Ewes polled — tups usually horned. Lambs born black woolled, ewes go blue-grey with age. Strong boned and with good conformation for a hill sheep.

❑ History

Although they are not as old as the Lake District fells where they originated and where they largely still flourish, they are very different from other northern English hill breeds. Breed points were laid down from the 1840s and the Herdwick Sheep Breeders Association formed in 1916.

At that time Herdwicks were the main breed from the Caldbeck Fells in the North to Low Furness in the South and from West Cumberland to the Shap Fells in the East. They are now largely confined to the central and western dales and the highest, hardest and wettest fells of the Lake District on which they are hefted.

❑ Main Purpose of the Breed

They are essentially a high hill breed and are widely thought to be the hardest British breed, exceptionally suited to their terrain.

Although they are only found in commercial numbers in the Lake District, Herdwick tups have often been used on ewes of other hill breeds to impart extra hardiness. There are now numerous small flocks of Herdwick sheep throughout the British Isles and they are proving to be a highly

popular and successful small breeders' sheep. The wool is of low quality and value but it is exceptionally weatherproof.

When drafted from the fells into even a reasonable plant of nutrition they become much more prolific and milky. They are in such circumstances frequently crossed to produce a well-framed butchers' lamb — with as much success being had with newer continental tups as with older established terminal sires.

Herdwick meat has exceptional quality being dark, fine-grained and well flavoured.

Trials conducted for MAFF at Bristol University's School of Veterinary Science in 1997 indicated that the reputation of Herdwick for high eating quality is well founded. When compared with standard commercial crossbred lamb, Herdwicks had 'superior flavours' and 'high levels of eating quality'.

❑ General Information

Average Prolificacy:

High hill conditions:

Ewe lambs: not put to the tup

Shearling ewes: not always tupped, but if they are 75-80%

Mature ewes 80-90%

Lowland conditions: 125-150%

Average Birthweight of lambs:

Singles 1kg

Twins 0.75kg

Carcase weight of lambs at slaughter:

From six months of age 14-18kg

Average Adult Bodyweight:

Mature ewe 35-45kg

Mature ram 65-75kg

Under high fell conditions in the Lake District they rarely receive any supplementary feeding, yet they perform relatively well. They have a well-deserved reputation as a long-lived, usually good mouthed sheep, producing well carcased lambs very economically.



Hill Radnor

❑ Description

The Hill Radnor is a hill or mountain breed most commonly found in the Welsh counties of Powys and Gwent and adjoining areas. It is a hardy sheep, being gay in appearance and active. It is a heavy breed having good length of body and width in hind quarters, standing on well set legs with an abundance of bone, has a grey aquiline nose with a tan face and legs, both of which are free from wool. The ears are small and alert. Rams usually have long curved horns spiralling outwards, but the ewes are always hornless.

❑ Main Purpose of the Breed

Hill Radnor sheep produce a dense white fleece which is popular with the trade and also much used locally by spinners and weavers with whom it is in great demand with an average weight from 2-2.5kg.

The wool is retained up until shearing and not shed around as with some hill breeds. Radnor wool has always done exceedingly well in competitions.

When Radnor ewes are mated to Down rams the resulting progeny are very early maturing.

Radnor rams are frequently used on other breeds of hill ewes when they improve weight gain, size and carcase conformation without losing the hardiness so vital in a hill environment.

The carcase produced by the Hill Radnor is very popular with butchers and housewives alike,

being much sought after.

At birth the lambs are full of vitality, exceptionally well coated and are good doers. Lambing percentage varies under different conditions but easily averages around 155%.

❑ General Information

Average Prolificacy:

Mountain conditions	120%
Lowland conditions	165-175%

Fleece Characteristics:

Staple length	8-14cm
Fleece weight	2-2.5kg
Bradford Count	48's-56's

Adult Average Bodyweight:

Mature Ram	75kg
Mature Ewe	50kg

Hill Radnor carcasses have done exceptionally well at the Royal Smithfield Show, winning the hill breed championship on numerous occasions.

In 1993 the Hill Radnor was registered by the Rare Breeds Survival Trust in Category C. Since that time new members have joined the Society from further afield, but the breed is still mainly centred in its native environment in the border counties of Breconshire, Radnorshire, Herefordshire and the old county of Monmouthshire.

❑ Outstanding Qualities

The hardness of the breed is renowned, its ability to forage and look after itself even in the worst weather conditions.

The Hill Radnor is a healthy breed free from many of the contagious and hereditary diseases which often affect other breeds.



Icelandic

□ Description

The Icelandic is a medium sized, upstanding sheep, with a light frame, and a naturally short, fluke-shaped tail. Although majority are horned in both sexes, polled rams and ewes are common. The horns of the ram are strong and well rounded, the ewe's horns are finer and usually swept back. Four-horned sheep are found occasionally in Iceland but none have occurred in the UK. The fleece consists of a dual coat of very fine underwool and an outer coat of long hairs, and is found in all the natural colours, including a wide range of browns. Broken coloured sheep are common, the patterns ranging from limited markings, such as spectacles, to large patches of colour on a white background or the reverse. Darker dorsal stripes are often found, and moufflon and badger face patterns occur. Grey sheep may have a black outer coat.

□ History

The Icelandic is a member of the Northern short-tailed group of breeds. It was taken to Iceland by the Vikings, who colonised the island between 870 and 930 AD. It seems that the Icelandic sheep has changed little, except for an increase in size, from those early days. The breed is primitive, ie, it still shows many of the characteristics of the wild sheep, for instance, horns in both sexes, a very short tail, and a dual coat which is moulted and often coloured. The Icelandic differs from British primitive sheep in two respects. It is larger and more docile, perhaps because in Iceland the sheep are housed for about seven months of the year.

❑ Main Purpose of the Breed

In the UK the naturally coloured wools are used in the craft market. The dual fleece can be separated into hairy fibres for use in yarns suitable for tapestry, warps, etc, or fine fibres for the production of fine woollen goods. The traditional Loipe knitting wool is produced by spinning both fibres together with very little twist, resulting in a soft, light yarn which entraps the air, giving garments a high insulation value. The wool of the Icelandic felts very quickly, producing a firm, strong material. A more uniform fleece can be obtained by shearing twice yearly. In Iceland this is done at the end of October when the sheep are housed, and again in mid-March, eight weeks before lambing. Lambing in the UK is usually from mid-March.

❑ General Information

Average Adult	ram to 90kg
Bodyweight	ewe to 60kg
Prolificacy	140%-180%, dependent on nutrition
Fleece	weight c. 2kg
	staple, undercoat 6cm, outercoat 21cm
	range 12-80 microns, Bradford Count, over 70 to under 46
	mean 27 microns, Bradford Count 56

❑ Outstanding Qualities

The Icelandic is a hardy breed adapted to a highly exposed and rocky environment. The exceptional fleece protects it from cold, wind and rain. It qualifies for the Hill Livestock Compensatory Allowance.

The ewes are prolific, milky, lamb easy and are good mothers. The lambs stand and suck quickly. They are protected from the elements by a curly coat, and, although small at birth, grow fast.

The meat of the Icelandic has the good flavour typical of primitive breeds. It is very lean because, in common with other primitives, the fat is largely built up within the carcase rather than under the skin.



Ile de France

□ Description

Head: is strong with broad forehead, polled with protruding sockets, face of medium length; lips and nose rather thick. **Profile:** straight, slightly concave for the ram; large ears, horizontal or standing slightly upwards, never drooping, covered with thin short hair, wide nape of neck.

Neck: short, trunked, rounded off at the upper part, well blended with shoulders, without dewlaps or folds.

Body: wide and large, broad and deep chested, prominent and thick sternum; well sprung ribs; straight wide back; horizontal and large rump; well set tail, muscled thighs; short and well developed legs.

Limbs: medium length of legs and regular compact conformation.

Wool: Close White Fleece, blocky, staple of good length. Average quality: -1 (ie 23-27 microns). Average weight of fleece 5-6kg for rams and 4kg for ewes.

White-covering covers the top of the head and extends down to or slightly above the orbital arches, frames and face; extends to just above the knees of the forelegs; covers the chest and belly; extends over the buttock to the hock of the hind legs; covers the posterior upper part of the tendon.

❑ History

Developed in France from the Dishley Leicester ram and Marino ewes. The Ile de France Society was formed in 1933 and the testing station was set up at Verdilly.

❑ Main Purpose of the Breed

The Ile de France is a meat producing sheep.

Terminal Sire: It is widely used throughout the world for quality lamb. The rams will work all the year round.

Early lambing: Flocks are used for early lamb production without the need to resort to artificial means.

Versatility: Because the Ile de France does not run to fat and is well muscled it can be used to lamb early or late. They will thrive on varied diets and conditions which make it a breed that is easily adaptable to changing market and farming conditions.

Replacement ewes: The quality of the crossbred ewe makes them ideal to retain instead of buying in replacements.

❑ General Information

Weight	Rams 110-150kg, Ewes 70-90kg
Fertility	Rams are fertile all the year and will work. Ewes will lamb at any time of year.
Prolific	Lambing % are realistically recorded of 168%-198% in season and 150%-171% out of season.
Lambing	The ewes lamb easily and the lambs are quick to their feet.
Performance	400 grams daily liveweight gain 3.78 Food Conversion Ratio, 59.9kg at 150 days 35.2mm muscle, 2.86mm back fat

Source: Dept of Agriculture of Northern Ireland's tests 1988 to 1992 on 58 ram lambs.

Single rams	29-35kg Weight at 70 days
Single ewes	26.9-31kg at 70 days
Double rams	25.3-29 kilos at 70 days
Double ewes	23.6-26.5 kilos at 70 days

Source: French Ile de France Society over all recorded flocks in 1990.

Hardy The Ile de France is a very hardy sheep and the tight fleece protects against the worst rain and wind.

Versatility Lamb early and finish lambs quickly. Lamb late and allow the lambs to finish for the Autumn market because the breed is lean. Be housed intensively or to fend for themselves. To be fed on a wide variety of feeds.

❑ Breed Developments

The Ile de France was the first sheep breed in the world to have introduced a modern breeding programme and today they test up to 500 ram lambs a year at their testing station at Verdilly.

A Sire Reference scheme has been formed by breeders in England and Northern Ireland.



Jacob

❑ Description

Upstanding, deep bodied sheep. Basically white with black patches; head and neck black with a white blaze on the face extending down the chest. Both sexes are horned, either two or four and very occasionally six.

❑ History

The result of the earliest recorded selective breeding (Genesis — Chapter 30), Jacob sheep came to Britain via the Iberian Peninsula and were well established here as Park sheep by the 18th Century. Their number diminished with the decline of the great estates but, during the last 30 years or so, their enduring virtues of easy management and pleasing appearance have led to them becoming a popular breed among small flock owners, with a consequent upsurge in numbers. The Society was founded in 1969.

❑ Main Purpose of the Breed

Jacob sheep are hardy, healthy and intelligent creatures and are thus easy to manage. This, with their prolificacy and their high quality wool in two colours, enables enterprising flock owners with limited acreage to obtain above average returns. The fine boned sheep give joints of succulent lean, slightly gamey flavoured meat, with a good meat to bone ratio. The ewes cross well with meat producing rams for fat lamb production.

❑ General Information

Average Prolificacy:

Ewe lambs	120%
Shearling ewes	190%
Mature ewes	200%

Average Adult Bodyweight:

Mature ewe	60-65kg
Mature ram	80-100kg

Average Birthweight of lambs:

Singles	4-4.5kg
Twins	3-3.5kg

Carcase weight of lambs at slaughter:

Carcase weight	17-18kg
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❑ Outstanding Qualities

Prolificacy which, together with the ewe's good mothering abilities and the lambs stamina, gives a high yield of lambs reared.

Longevity — Ewes and rams remain good for breeding for seven or eight years and longer, with good sets of teeth.

High quality wool in two distinct colours (cream and black) enabling attractive, warm and lightweight garments to be made from natural, undyed material, both in the cottage industry and by specialised mills. The latest lightweight tweeds have attracted interest in France, America and Japan.



The Jacob Sheep Society

Kerry Hill



Kerry Hill

❑ Description

A well-balanced sturdy sheep with ears set high and free from wool. A black nose and sharply defined black and white markings on the head and legs.

Both ewes and rams are hornless. It is a handsome sheep, with a dense fleece, which is usually white. The fleece handles well and is amongst the softest of British wools. Average staple length is 10cm (14in). Average weight of fleece is 2.75kg (6lb). Bradford count 54's-56's.

In both ewes and rams, teeth should be regular and meet the pad neither undershot or overshot. The weight of a mature ram will range from 65kg to 70kg. A mature ewe will weigh from 55kg to 65kg+. The Kerry Hill sheep are good on their feet and good in their teeth.

❑ History

The Kerry Hill Breed is from Powys and it derives its name from the village of Kerry, near Newtown.

There are records of this distinctive breed in this area, dating back to 1809, and the first Flock Book was published in 1899 with 26 members. Registered Kerry Hill sheep can be found throughout the British Isles, Ireland and Holland.

➤ Main Purpose of the Breed

The Ram — the sire to produce the ideal crossing ewe, noted for fertility. Crosses well with Hill

and Longwool breeds. A good quality white fleece. Both pure and crossbred carcasses are lean. A hardy and attractive sheep, backed by a breed history of 150 years.

The ram is widely used to cross with Hill type ewes, producing an almost perfect low weight joint from the male progeny.

The Ewe — the perfect mother — a lambing percentage of 175% is readily achieved. Crosses well with Down and Longwool rams. An excellent lean lamb carcass which can reach 19-24kg. Thriftiness and longevity resulting in low depreciation costs — suckles well, and good liveability at birth is characteristic of the breed. At home on the uplands — happy on the lowlands.

Adapts readily to all forms of sheep husbandry, with good foraging abilities and economic winter feed requirements. It is noted that the ewe makes an excellent cross with Down ram breeds. These lambs are outstanding and mature early, have good conformation and length and are quality lean meat. When crossed with long wool breeds eg Bluefaced Leicester, a very fine hybrid ewe is produced.

This is where the Kerry Hill excels herself in producing a large strong framed sheep that can be crossed with quality meat types, to produce the ideal type of carcass, that is sought after by the housewife today.

Kerry lambs will market at 16kg (35lb) At 12-14 weeks old or if kept on as stores will produce a good lean carcass of some 20-25kg (45-55lb) the following spring.

❑ Official Sales

Ewes and rams are always available for sale at sales held at Knighton and Kerry (Powys) in September. Official Ram Sales are held at the NSA Ram Sale in September.

The Kerry Hill Flock Book Society has a buying panel and are always willing to advise and help. For further details apply to the Secretary.



The Kerry Hill Flock Book Society

Leicester Longwool



Leicester Longwool

❑ Description

The Leicester Longwool is a large active sheep with mature rams weighing around 150kg and mature ewes up to 100kg, it grows a heavy lustrous wool weighing from 12-18lb but with weights of up to 33lb being recorded. Leicester wool exhibits evenness in length and diameter of fibre. It has a Bradford count of 40-46 with a staple length of up to 18inches.

The head is bold and strong on a short thick neck. The crown is well covered with wool, and the face covered with white hair. The ears are blue, fine and fairly long with occasional black spots. The muzzle strong with even jaws, and nostrils dark in colour. The carcass is deep and of considerable length with full flanks. The back is broad and level and the ribs well sprung. The legs are of medium length with good bone well set up on the pasterns on dark feet. The legs are covered in white hairs or wool.

In recent years emphasis has been placed on improving carcass and prolificacy, whilst maintaining good quality heavy fleeces. In the last ten years important blood lines from Australia and New Zealand have improved the genetic bases of the breed.

❑ History

Practically every breed of British sheep owes some of its properties to the Leicester sheep and the work of Robert Bakewell of Dishley. Bakewell saw the possibility of turning the Leicester sheep into a first-class dual purpose sheep capable of producing a high quality carcass as well as

heavy fleece quality. Although a native of the Midland counties, the principal Leicester flocks have been found on the Wolds of East Yorkshire, and hills of North Yorkshire. The migration north is no mere accident but is due to the ability of the breed to stand up better than any other to the rigours of the climate in this part of the country.

Numbers dwindled drastically in the sixties and seventies. Today the breed is established throughout the UK and extends into mainland Europe. Over the years Leicester's have been exported to most sheep producing countries in the world with large flocks in Australia and New Zealand, and in 1990 were introduced into the USA where they are becoming popular.

❑ Main Purpose of the Breed

The Leicester Longwool ram is without doubt a first rate sire. It is very prepotent and when crossed with almost any other breed stamp their well known properties of easy feeding and heavy lustre fleece. When crossed with the Swaledale, Scottish Blackface, Rough Fell or any of the other mountain breeds produces quality hard-wearing breeding stock, and wether lambs which are easy to finish. The Leicester and Leicester cross when marketed at the right time will produce a commercial carcase in the 18-24kg weight range at fat class 2/3.

The Suffolk cross Leicester is an excellent breeding ewe. The Leicester and Leicester cross ewe is a very good mother. They exhibit exceptional longevity due mainly to their extremely sound mouth and feet. The Leicester is very docile and easy to handle. The Leicester is a very hardy sheep and is able to stand severe weather conditions.

Scrapie is unknown in the breed. The Leicester Longwool breed is currently taking part in the RBST Scrapie genotyping scheme and preliminary results show that the breed is largely resistant to Scrapie.

❑ General Information

The value of the woolclip can be, when sold through the BWMB, almost double that of most commercial flocks. The Leicester produces lustrous fleeces which are popular with hand spinners and are exempt from the Wool Board regulations and can be sold privately. The wool is very versatile due to the length of staple and can be spun from raw fleece, combed or carded and is used in a number of crafts such as knitting, rug making, tapestry, wall hangings and soft furnishings.

Although on the RBST Priority List at category 2 (endangered) the breed has shown its commercial viability in recent years by its consistent success in the Show Field including Golden Fleece Competitions, Supreme Championships at the Royal Show and at the RBST Show and Sale and numerous other Agricultural Shows.

The Leicester Longwool Sheep Breeders' Association was formed in Driffeld in 1893. The association remains a small but friendly association. Further details can be obtained from the Secretary, Driffeld Agricultural Society, The Showground, Kelleythorpe, Driffeld, East Yorkshire TO25 9DN. Telephone and Facsimile 01377 257494.

Lincoln Longwool



Lincoln Longwool

❑ Description

The Lincoln is the largest longwool sheep. It has a white hornless head with dark ears, pointed slightly forward and a broad forelock of wool. The fleece is the heaviest, longest stapled and most lustrous of any breed in the world. The Lincoln has a large strong boned frame with a deep rib carried on long well placed legs. The well shaped dark feet are notably resistant to foot disease.

❑ History

The Lincoln has been developed over the centuries to produce large quantities of high quality strong wool to make warm hard wearing, long lasting cloth. The sheep from Lincolnshire were the backbone of the wool trade and prosperity of the east of England in the Middle Ages and right through the centuries until the advent of artificial fibres. Robert Bakewell, the famous 18th century agriculturist, used Lincoln sheep as his foundation stock in the development of the 'Dishley' Leicester and used this, in turn, to improve the Lincoln which became an important dual purpose breed producing both a quantity of wool of high quality and a large mutton carcass with weights as great as 96lbs per carcass.

Although a Society to safeguard and improve the breed had been formed as early as 1796, by the 1890's breeders saw the need for a new body, the Lincoln Longwool Sheep Breeders' Association. This Association undertook to register all Flocks and to certify the breeding of the many thousands of Lincolns being exported all over the world, particularly to South America,

Australia and New Zealand, where they were used to create, with the Merino, new wool breeds such as the Corriedale and Polwarth.

Among founder members of the Association was Mr Henry Dudding, one of 19th century Lincolnshire's most notable livestock breeders. He established the now legendary Riby Sales which attracted crowds of overseas buyers. In 1890 a ram sold for 1000 guineas and in 1896 a new record was created when a ram for export to Buenos Aires realised 1450 guineas, nearly 20 years wages for an agricultural worker at that time. In 1897, when there were half a million Lincolns in Lincolnshire and neighbouring counties, a record of 5561 were exported.

In 1914 Mr Ernest Addison of Riby took over most of the Dudding Longwools and continued the unbroken line of Riby successes in the show ring. Unfortunately, despite appearances, the Lincoln was already in decline, affected by the changing fashions both in fibre and meat. Significant numbers of Lincolns continued to be exported to South America until the Second World War but after the war Russia became the largest overseas market. However, when Mr Addison's flock was dispersed in 1953 after his death, the top price for a ram was a mere 40 guineas.

The decline continued and by 1971 there were only 15 flocks left, with a total ewe population of about 500. Now, though classified as a 'rare breed', the Lincoln Longwool is enjoying a revival and there are about 1300 ewes in approximately 80 flocks nationwide. This increase in the national flock has, of course, led to a steady increase in the quality of stock available.

❑ Main Purpose of the Breed

The Lincoln was developed to produce large quantities of high quality wool and at the end of its useful wool producing life, a good carcase of mutton. Commercially, Lincoln fleece is used for a very diverse range of products, from roller lapping used in the textile industry, quality worsted and upholstery fabrics, carpets, dolls' wigs and plush soft toys. It is often mixed with mohair in the production of both 'fluffy' mohair yarns and fine tropical suitings. Additionally, more and more handspinners have begun to discover the versatility of both Lincoln ewe and lamb lustre fleece for a comprehensive range of knitting and weaving yarns. No matter what breed it is crossed with, the resultant progeny will have improved quantity and quality of wool and increased size of carcase. Their docility and character make the Lincoln an ideal choice for the small 'hobby' flock owner.

❑ General Information

Prolificacy: The Lincoln is not one of the more prolific breeds. Ewe lambs are not bred from and shearlings and mature ewes achieve an average of 125-150%.

Birthweight: Average birthweights are 6-7kg for singles and 5-6kg each for twins.

Carcase: At slaughter the carcase weight of a 20 week old lamb will be in the region of 20-29kg and the hoggett is likely to be in the region of 35-40kg with an excellent flavoured large lean leg of lamb.

Bodyweight: The average weight of a mature ewe is 85kg and of a mature ram is 150kg.

Fleece: The average weight of a ewe fleece is 6-7kg. The world record fleece clipped from a 27 month old ram at its second shearing — 46½lb of unwashed wool. Heckington Show record in 1997 — 45lb, also from a two-shear ram. The record length of staple is 32in, clipped from a yearling ewe at first shearing.



Llanwenog

□ Description

Blackfaced and polled with tuft of clean wool on the forehead, this is a white fleeced, compact sheep with well sprung ribs, a strong loin and thighs. Ears should be fairly short and thin, slightly elevated.

□ History

Llanwenog sheep originated in West Wales in the late 19th Century after flocks of the Shropshire Down breed were brought in to improve carcase quality and earlier maturity of lambs produced from the various types of local sheep. A most successful cross was made between the Shropshire and a now extinct type of horned, blackfaced ewe from the Llanllwni area. Upgrading and selection of this cross continued and the breed type became fixed in the relative isolation of the Unitarian 'Black Spot' in the Teifi Valley. Early lamb markets were chiefly in the South Wales industrial region, then trade in breeding sheep became increasingly important and in 1957 the Llanwenog Sheep Society was formed.

Within a few years the breed began winning regularly in various national lambing competitions and was then acclaimed in 1971 as the only native breed of sheep recorded by the MLC with a lambing percentage over 200%. Ewes with exceptional breeding records were selected along with other breeds as foundation stock for the highly prolific Cambridge breed.

The breed currently numbers around 2,000 pure-bred ewes in registered flocks widely distributed

over Wales and England, the chief concentration remaining in Dyfed, West Wales.

❑ Main Purpose of the Breed

The Llanwenog is a semi-lowland, grassland breed for producing prime meat lambs. High outputs per hectare can be achieved from the unusual combination of the ewe's high lambing percentage along with a relatively low mature body size.

The ewe lambs will also readily breed in their first season without any detriment to their life-time performance.

Flocks were traditionally kept to complement the dairy herd, where the ability to lamb early in the year was a decided benefit but the breed is now also kept in both large commercial flocks and on a smaller scale by smallholders.

The choice of ram to put to the ewes is a wide one. Firstly, the flock may be pure-breeding and self-contained thus minimising the considerable health risks inherent in buying in replacement ewes. An alternative is to maintain a pure-bred nucleus flock and use a different breed of terminal sire on the rest of the flock, producing meat lambs with the option of retaining crossbred ewe lambs to establish a self-contained crossbred ewe flock.

Lamb carcase quality is excellent either crossbred or purebred.

❑ General Information

Average Prolificacy:

Ewe lambs	126%
Shearling ewes	167%
Mature ewes	180%

(Date from MLC Recorded flocks)

Average Birthweight of lambs:

Singles	4.7kg
Twins	4.3kg

Carcase weight of lambs at slaughter:

Carcase weight	14-19kg depending on breed of sire
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Average Adult Bodyweight:

Mature ewe	56kg
Mature ram	90kg

❑ Outstanding Qualities

The docility of the breed is often remarked upon. Handling operations are stress-free, the ewes readily take to in-wintering if required and the absence of the strong desire to wander, which occurs in other Welsh breeds, makes for easy shepherding.

Mention must also be made of the high quality of dentition in the breed which helps to reduce depreciation.

The wool is considered to be among the finest in the UK with a Bradford Count of 56/58 and a staple length of 7.5cm. Fleeces average 2.5kg. Main uses have been for hand knitting, tweeds and hosiery while more recently the wool has earned a high reputation with hand spinners.

❑ Official Show & Sales

The annual Show and Sale is held in August, at Llanybydder, Carmarthenshire, and a second sale is now held by the RBST at Stoneleigh in September. Please contact the breed secretary for details or any other enquiries.



Lleyn

□ Description

A medium sized lowland sheep weighing up to 70kg at maturity, renowned for their hardiness, prolificacy, easy lambing, strong mothering instinct, milkiness and easy handling.

The wool is white free from any coloured fibres or kemp and is of good length, dense and of high quality with plenty of crimp.

Heads must be feminine and warm white in colour with wide foreheads, good length from eye to nose — being straight to slightly dished and narrowing towards the nose. Bright lively eyes and a black nose. Medium sized ears with black spots are desirable with the base of the ear starting from the wool.

The breast to be wide and well forward.

The neck should be well set in the shoulders and of medium length. The back should be long with well sprung ribs and broad loins which are well joined to the rump.

Legs, which are warm white in colour, should be well set with no wool lower than the hock, flat boned and strong on the pasterns.

Rams must be naturally polled.

□ History

Lleyn sheep are natives of the Lleyn Peninsula which is the headland on the North West coast of

Wales projecting out into the Irish Sea. Indeed it is believed that the Irish Sea did play an important part in the development of the breed over the years. Rumour has it that during the last century, a wealthy landlord on the Lleyn Peninsula, imported sheep which were white, hornless, hardy and prolific with good milking ability from Ireland. This consignment was used to improve the then native Welsh breed.

In those days there were numerous smallholdings, as well as large estates, on the Lleyn Peninsula. For the smallholder and his family, the Lleyn ewe was multi-purpose. As well as rearing her lambs, the ewe was milked for the house and any surplus milk was made into cheese.

Over the years various dedicated breeders have made successful efforts to improve the breed by introducing new blood and to develop the breed to meet the changing demands of the market. It is important to realise that this was carried out under strict control which ensured that none of the good characteristics of the breed were lost.

Before the Society was formed in 1971, ewe sales were held during August and September on the Peninsula, with most of the ewes offered for sale being three and four year olds. Many of these ewes were sold to buyers outside the Peninsula with a lot going over to Anglesey. One of the important characteristics which attracted buyers in those days was the fact that the Lleyn ewe would cross well with any terminal sire dominant in any particular area at that time to produce quality prime lambs. Of course this, along with prolificacy, milkiness, longevity and hardiness are all just as true today as they were then.

□ Main Purpose of the Breed

Firstly and foremost Lleyn is a breed of ewe, renowned for its exceptional ability at mothering. Due to its prolific nature, closed flock status can be achieved in a relatively short time as high health status sheep are a requirement of modern farming methods. Lambing percentages between 180% and in excess of 200% is being consistently achieved. In recent years the Lleyn ewe has been used as a dam of continental cross commercial ewes and still maintain most of the superior qualities of the pure bred ewe.

The ability to thrive on low inputs, yet produce top quality lambs has never been more important. The Lleyn ewe wether put to a Lleyn ram or crossed with other major terminal sires produces quality carcass from 18-20kg. The Lleyn lamb is a good grazer, but does not run to fat and finish too early. Lambs can be finished on grass in the summer or held back as stores through the new year. In today's volatile market this option can make the difference between loss or profit.

Lleyn and Lleyn crosses survive under virtually all lowland management systems and are widely used to produce prime lamb carcass that combine consistency and high quality capable of meeting the most stringent specifications laid down by the meat industry now and into the next century.

Lambs and their crosses are lively at birth with good wool cover enabling them to grow and thrive under exposed conditions. What makes this breed particularly attractive is that this prolificacy and hardiness is combined with ease of flock management even on exposed land up to 310 metres above sea level.

In an effort to maintain and even improve standards, all rams and ram lambs are inspected for breed characteristics and physical correctness before they can be registered and used for pedigree breeding.

‘HAVE A LLEYN SWEEP THROUGH YOUR FLOCK’.



Lonk

❑ Description

This is one of the largest native hill breeds, the face and legs are pure black and white. The fleece is trim and even from head to skirtings, white and free from kemp. Both sexes are horned.

❑ History

The Lonk has been bred on the Lancashire and Yorkshire Pennines from time immemorial. It is an aristocrat by virtue of its origins as ancient as the hills on which it roams. Its first flock book was issued in 1905 although one Lancashire flock can be traced back to 1740. The breed was referred to in 1893 by William Youath in his book 'The Complete Grazier', as a breed of mountain sheep produced possessing great merit and the largest of any.

❑ Main Purpose of Breed

Lonk ewes are prolific and are good mothers averaging 150% lambing in well managed farms and when ewes are drafted to the luxury of lowland grazing this percentage is very often increased. Lonk ewes are often crossed with Down and Continental rams to produce a long lamb ideally suited to the modern consumer.

Lonk wether lambs often mature on the hill to 36kg in 16 weeks and when kept for winter feeding regularly achieve weights of 44kg. Lonk rams can be put on ewes of other hill breeds such as the Swaledale, Dalesbred, Scottish Blackface and Welsh to produced bigger lamb carcasses and

improve wool quality.

❑ General Information

Average prolificacy: 150%

Average carcase weight: 18kg

Average adult bodyweight:

Mature ewe 45-54kg

Mature ram 75-91kg

Wool Clip:

Ewe fleece weight 3kg

Ram fleece weight 6kg

Bradford Count 56-44

To date there have been no known cases of the scrapie disease in the Lonk breed.

❑ Outstanding Qualities

The Lonk often has to live throughout the year on bleak moors and can live on the poorest of grazing and its abilities are such as to turn what would otherwise be wilderness into an economical farming proposition.

❑ Official Shows & Sales

Lonk sheep are shown at all major shows, with the breed show being held each autumn.



The Lonk Sheep Breeders Association

Manx Loghtan



Manx Loghtan

❑ Description

The sheep can have two, four or occasionally six horns, or they can be polled. On the Isle of Man breeders tend to select for four horns, while in England the flocks are mostly two-horned. Polled animals are a variant of the four-horned type. The tail should be short with a hairy tip and should not descend below the hocks.

The wool should be a uniform dark chocolate brown, but it is paler on the outside where it is exposed to the sun. There are two fleece types: the hairy fleece with a staple length of about 100mm and a fibre diameter of 33 microns, and a woolly type of 60mm and 27 microns.

❑ History

The Manx Loghtan is a small primitive horned breed from the Isle of Man. It forms a part of the group of short-tailed prehistoric sheep which have survived in the more remote corners of NW Europe. The Loghtan is the descendant of mountain sheep which covered the hills of Man in their thousands until the 18th Century when new breeds were introduced into the island.

The mountain sheep were usually white, but many were grey, some were black and only a few were Loghtan, or brown, coloured. Loghtan (as it is spelt on the Isle of Man) is the Manx word for the 'moorit' colour also seen in the Shetlands. Clothing of Loghtan wool was highly prized, and as numbers declined there was a deliberate attempt to select for the brown fleece. All pedigree Loghtans now registered in the Combined Flock Book of the Rare Breeds Survival Trust

are brown, and while some white-marked animals do occur, these are not eligible for registration.

☐ Main Purpose of the Breed

Although some breeders slaughter their lambs before the winter, they are best kept until they are about 18 months old, by which time they have provided a crop of wool. The wool is in demand with spinners and weavers.

In lowland conditions, the lambing performance of the Loghtan is about 150% and a bit higher when crossed with other breeds. Its commercial potential lies in the breed's ability to produce high quality carcasses with good conformation at low cost when crossed with a terminal sire. The Loghtan is an 'easy care' sheep, with few lambing problems, and ewes have a very strong mothering instinct. Footrot is unusual, and fly strike is rare on adult animals.

The history and characteristics of the breed are fully described in *The Manx Loghtan Story*, by Peter Wade-Martins (1990).



The Manx Loghtan Sheep Breeders Group



Meatline

❑ Description

The Meatline is a British Breed, in the Terminal Sire category, developed from a breeding programme originated by Henry Fell in 1963. It is white faced, tight in the wool, with great length and heavy hindquarters. It is amongst the biggest of the British breeds, a mature ram weighing 140kg.

❑ History

Originally a mixture of chosen and outstanding individuals from five breeds, two British and three French, the Meatline evolved as a result of many years of rigorous and disciplined selection based on performance recording carried out under strict commercial conditions. The breed has been closed to any further use of outside genetic material since 1975. It is thus now a genuine and uniform pure breed.

Unlike all other breeds which are organised under the umbrella of a traditional Breed Society, the Meatline is administered by a commercial company, the Meatline Sheep Co Ltd. Individual breeders work under a franchise contract which lays down regulations on breeding, selection, management and marketing, which are strictly adhered to. All the component flocks are genetically linked by annual interchange of rams and additionally, by the use of Reference Sires. The great advantage of this, unique in the sheep world, is that a Meatline ram is a uniform and identifiable product irrespective of which flock it was bred in.

General Information

Selection is based on full recording and computer analysis using the BLUP and Sire Reference programmes administered by SIGNET. The genetic progress that has been made is well illustrated by the accompanying graphs and table. The figures speak for themselves.

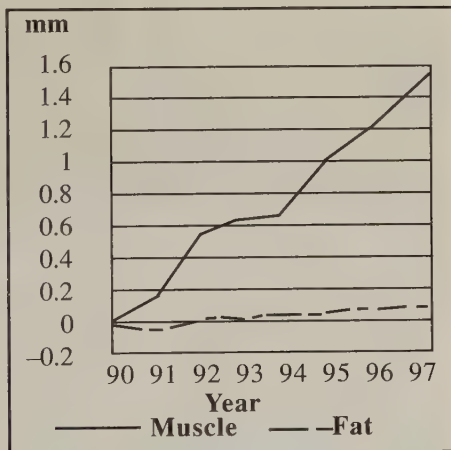
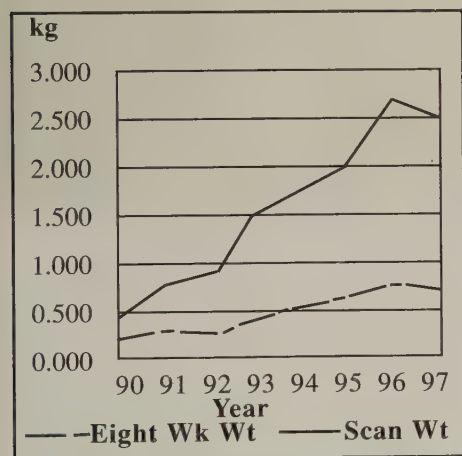
It is important to stress that the Meatlinec is bred and produced by commercial farmers. The rams are never pampered or over-fed and will go away and thrive. Ram lambs are not pushed on creep feed and their recorded performance is achieved off grass and milk — thus reflecting the management under which their progeny must thrive on customers farms. Furthermore, they are hardy — we have customers in the Orkneys and the remote Glens of the Highlands, as well as from Cumbria to Kent.

Only shearling rams are sold, and at fixed prices related to the Signet Scheme Index scale, all ex production farm. The nucleus flock is at Thorganby, near York, with satellite flocks at Gilmanscleuch, Selkirk (Martin Scott), and at Ross-on-Wye (Edward Vines).

Breed Developments

All flocks are Scrapie monitored and initial work has started on gene mapping for resistance.

The new CT whole body scanner now coming on stream at the Moredun Foundation will be used to add further accuracy to genetic selection.



Year	Eight Wk Wt	Scan Wt	Muscle	Fat	Scheme Index
90	0.282	0.459	-0.033	-0.012	84.7
91	0.345	0.773	0.144	-0.047	100.0
92	0.304	0.902	0.538	0.052	115.2
93	0.470	1.461	0.636	0.020	129.1
94	0.577	1.717	0.652	0.047	131.0
95	0.593	2.003	0.998	0.033	153.3
96	0.764	2.742	1.294	0.095	173.2
97	0.691	2.532	1.544	0.088	184.2

The Meatlinec Sheep Co Ltd

Norfolk Horn



Norfolk Horn

❑ Description

A medium-sized sheep, long in leg and body. Fore-quarters are narrow. Alert and active in character, it has a relatively fine head with a long straight profile. Both sexes are strongly horned, ideally with an open spiral, and the horns should not grow into the face or head. The fleece is short-stapled, close, white wool. The wool on new-born lambs is invariably darker or mottled; this should change to white with age, although a limited amount of black fibres or black spots is permissible in the adult fleece. The black or dark legs and face are free from wool. The feet are black.

❑ History

The Norfolk Horn is one of the oldest breeds of sheep in Britain. It is descended from the ancient Saxon black-faced sheep once prevalent in Northern Europe. It developed in the relative isolation of East Anglia, bounded by the North Sea, the Fens to the West and the heavy forested clays to the South. The fine fleeces were used in the Middle Ages for the East Anglian worsted industry upon which much of the region's wealth was based. Norfolk Horns fared well on the lighter upland soils and sheep were needed to graze the heaths and dung the fallows and the corn stubbles during the winter. Indeed they were essential to improve soil fertility in the East Anglian arable rotation. Towards the end of the 18th Century the Norfolk Horn was repeatedly crossed with Down sheep giving rise to a black-faced half-breed. Within a matter of a few decades the Norfolk Horn lost its pre-eminence to these crosses which were ultimately to become the Suffolk.

The breed is on the increase once more with approximately 800 registered ewes and 300 ewe lambs in 1997.

❑ Main Purpose of the Breed

A hardy sheep, well adapted to the dry cold winters and hot summers of East Anglia. It is an excellent forager with an ability to convert lower grade pasture to maintain condition and rear lambs. The lambs themselves grow well on grass and live weights in excess of 35kg can be achieved with the minimum of concentrates. The ewes are milky and prolific with excellent mothering abilities and generally rear twins without difficulty. The breed has a low incidence of lambing difficulties. Lamb and mutton is of a particularly good flavour.

❑ General Information

Average Adult Bodyweight:

Mature Ewes	70-75kg
Mature Rams	90-95kg

❑ Official Show & Sale

The Official Sale in the Rare Breeds Survival Trust Show and Sale at Stoneleigh in September. Norfolk Horn Breeders' Group Secretary — Mrs Kerry E Long 01485 600824.



The Norfolk Horn Breeders Group

North Country Cheviot



North Country Cheviot

❑ Description

The North Country Cheviot (NCC) is a big, long, rugged, white sheep which combines thriftiness and healthiness with prolificacy and strong maternal qualities. The largest of all the UK Hill breeds, it is particularly suited to grassy hills and uplands.

History

In 1792 the noted agricultural improver, Sir John Sinclair, took 500 sheep north from the Cheviot Hills to his Langwell estate in Caithness. These 'Cheviots' were a great success and in the following years many thousands were taken north to Caithness, Sutherland and Ross-shire. The present day North Country Cheviot has developed from these sheep. Nowadays there are three distinct types within the breed — the Hill (or Lairg) type, found mainly in Sutherland and Wester Ross, the Caithness type, a bigger and heavier sheep and the Border type, a strain resulting from re-infusion of bloodlines of the other two types back to the Borders between the two World Wars.

❑ Main Purpose of the Breed

Most NCC ewes are bred pure and there is a keen demand for all classes of pure-bred stock — rams, ewes and lambs. The sheep thrive in a wide range of grazing situations. Hill NCC ewes are particularly kind mothers, easy to handle, with few lambing problems. They produce quality lambs under the most rigorous and demanding conditions and are also noted for their longevity.

Draft hill ewes sold to lower farms at about five years old consistently prove great performers, producing another two or three crops of lambs. On marginal and lowland the NCC has traditionally been crossed with the Border Leicester to produce the renowned Scotch Half Bred. Half Breds are excellent mothers, producing top quality, fast growing prime lambs when put to Down or Continental sires. The Cheviot Mule (Bluefaced Leicester Ram X NCC ewe), when put to a terminal sire, also produces a lamb with a high quality carcass. Suffolk, Texel and other terminal sires can also be crossed directly on to the NCC ewe to good effect.

NCC Rams have consistently proved their worth as crossing sires with Blackface, Swaledale, Herdwick and Welsh hill breeds. The cross wether lambs are ideal for store or finishing, while the females make first class mothers — kind, milky and prolific. One cross which is proving very successful in Wales is the NCC Ram X Beulah Speckled Face Ewe. The ‘Speckled Cheviot’ females are usually put to terminal sires to produce top-class prime lambs. An important characteristic of North Country Cheviots is that their working lives are considerably longer than many other breeds. The attraction of the NCC (and NCC cross) lamb for finishers is its ability to retain leanness and conformation at a wide range of weights, making it suitable for both short and long-keep finishing systems.

General Information

	Hill	Upland/Park
Ewe Prolificacy (%)	90-120	140-180
Lamb Birthweight (kg)	3.5-4.5	4.5-5.5
Lamb Carcase Weight (kg) — 16 weeks	—	16-21
Lamb Carcase Weight (kg) — overwintered	24-32	24-32
Ewe Bodyweight (kg)	55-65	75-90
Ram Bodyweight (kg)	75-85	95-100

Breed Developments

The findings of a six-year study by Dr Linda Mitchell of the Scottish Agricultural College, Aberdeen, confirm that a variety of crossing sires can be used effectively with NCC ewes. The breeds used as crossing sires were Border Leicester (BL), Bluefaced Leicester (BFL), British Milkshcep (BMS), Bleu du Maine (BDM) and Rouge de l'Ouest (RDO). The research project involved setting up and monitoring a breeding flock of cross ewes which were all put to the Suffolk tup and managed as a single flock. The outcome proved very positive, with high lambing percentages and healthy, vigorous lambs with many of the characteristics of the NCC — prime lambs which compare favourably in terms of profit potential with most, if not all, of the crosses currently popular with producers in the UK.

*Performance Criteria for North Country Cheviot Cross Ewes**

Crossing Sire	BL	BFL	BMS	BDM	RDO
Mature Liveweight (kg)	87	86	77	78	75
Lambing % as first crop ewe	203%	200%	243%	193%	191%

(live lambs per 100 ewes to the ram)

*SAC 1997



North Ronaldsay

❑ Description

They are small sheep with fine bone and a 'dished' face. Rams are horned and ewes generally polled. The tail is naturally short. Fleeces vary in colour with white and grey predominating and black and moorit less common.

❑ History

The native sheep of the Orkney Islands are now confined mainly to the northern-most island of that group, North Ronaldsay. They represent an early stage in the evolution of domestic sheep and they are the ancestral stock from which the modern Shetland developed. They belong to the Northern short-tailed group of breeds and are thus related to the Romanov and the Finnish Landrace.

❑ Main Purpose of the Breed

The system of sheep management on North Ronaldsay is unique. A high stone wall completely surrounds the islands separating the cultivated land from the shore. Apart from a few weeks after lambing the sheep live outside this wall, and have adapted to a diet consisting entirely of seaweed. Their evolution in this environment has resulted in various physiological changes. In particular their ability to utilise dietary copper may lead to copper toxicity.

❑ General Information

North Ronaldsay sheep are exceptionally hardy and prolific. On their native island ewes often produce twins and occasionally triplets. The average fleece weight under island conditions is 2.5lb. The grey wool tends to be coarser because of the mixture of hairy black fibres among the white wool. The white and moorit wool is almost as fine as Shetland wool with up to 56 quality and is used mainly for hosiery and woollens. The meat is distinctive and of high quality.

For further information about this breed contact The Rare Breeds Survival Trust.



The North Ronaldsay Sheep/Rare Breeds Survival Trust

Oxford Down



Oxford Down

❑ Description

The Oxford Down is the largest and heaviest of our Down Breeds, with a capacity for fast growth and early maturity, it is an ideal crossing ram, producing light carcasses in early lambing flocks earlier than its contemporaries catching the market whilst prices are good. When kept for heavy lamb production the heavier carcasses are produced without unwanted fat, being most suitable for today's market. Suitable for rolling and boning or cutting larger joints into fillets for the requirements of the housewife.

❑ History

The Oxford Down Breed originated in the 1830s. The breed became established over the next 50 years achieving widespread success, producing outstanding sheep for both mutton and wool. Large numbers were exported particularly to the United States of America. The first Flock Book was published in 1889.

❑ Main Purpose of the Breed

A Terminal Sire, when put to the Mule, Masham or Suffolk cross Scotch Halfbred ewes it produces carcasses of 19 to 21kg deadweight with low fat. Ideal for the Meat Trade of today.

Lambs sired by the Oxford Down have a good wool cover at birth enabling them to survive in cold conditions.

Exports have been made to Holland and Denmark. Enquiries are being made for a supply of stock rams to go to Switzerland, and semen to the USA.

There are Oxford Down Flock Books in Denmark, USA , Canada and Switzerland.

General Information

Ram Performance Trial Results 1997

Performance at 142 days

Top Third

Wt kg	Fat mm	Muscle mm
64.3	4.4	27.8

Overall Average

Singles

Wt kg	Fat mm	Muscle mm
57.8	3.6	26.2

Breed Developments

Selection for today's market is a priority for the Breed. Currently the breed has its own Recording Scheme to measure ewe performance. It is currently measuring ram growth rate, fat and lean content, by means of ram performance testing. So that selection can be made to enable breeders to produce animals capable of producing stock suitable for today's market.



The Oxford Down Sheep Breeders Association



Portland

☐ Description

The Portland Sheep is a heathland breed from the Dorset area, and a representative of the tan-faced group of breeds from the South West.

It is a small animal, the average adult ewe weighing 38-40kg. The body is of a primitive type within the Down breeds, with good width between the legs. The tail is long and set well up on the rump.

The legs are fine-boned with an even tan colour. The front legs and hind legs below the hock should be free from wool. The hooves should be uniformly dark, small and straight. The face is a tan colour but may have lighter areas around the eyes and muzzle. The nose is dark. Some sheep carry a light covering of wool on the forehead but the rest of the face is free from wool. Horns are light coloured; those of the ram are heavily spiralled; in ewes they curve through a half circle. There is often a black line in one or both horns.

Lambs are born with a foxy-red coat which changes in the first few months to a creamy white. The wool is close and fine with a short staple though some red kemp fibres may be found on the britch.

The breed produces exceptionally high quality meat, with fine texture and excellent flavour, but achieves lambing percentages of only about 100%. The Portland is capable of lambing out of season.

History

Portland has a history of an isolated farming community, influenced in turn by the Romans who may have introduced a Mediterranean type of sheep, and then by the Saxons who brought the Mediaeval strip system of land management which has persisted on the island to this day. Large numbers of sheep were kept on the Island and the people paid their tithes in cheeses (made from ewes' milk) and traded wool. With the advent of better communication the meat gained its reputation for excellence. Quarrying of large amounts of Portland stone for the harbour breakwater and prison put severe pressure on agriculture and the numbers of sheep on the Island declined until the last Portlands left in 1920. Portland sheep were reintroduced in 1977 at the instigation of the Portland Field Research Trust.

Legend has it that some ancestors of the Portland sheep swam ashore from the Armada — another explanation of the Mediterranean or Merino type influence in the breed giving the fineness of fleece so appreciated by spinners. The area does have many wrecks since Portland Bill can be treacherous for shipping and some were also lured into the Chesil beach by wreckers' lights. George III made frequent and regular visits to Weymouth, where he is said to have insisted on eating Portland mutton as a great delicacy. The meat was also highly regarded by troops garrisoned in the area. In a recent tasting, Portland meat emerged as a clear winner for its quality and flavour.

General Information

The Rare Breeds Survival Trust's survey in 1974 discovered a total of 86 breeding ewes and three major bloodlines (Field/Marsden, Stubbs/Clutton and Harper-Crewe. By 1988, almost half of the foundation ewes and about two-thirds of the rams were represented in the years lamb crop. In 1990, the Calke Abbey foundation flock was added to the Flock Book with the inclusion of 16 rams and some 200 ewes. There are currently over 100 flocks and some 500 lambs are registered with the RBST per year. The breed is currently listed as being in category 3 (endangered) by the Trust.

- Attractive
- Noted for the excellent of flavour and texture of meat
- Fine, creamy fleece much sought after by handspinners. Weight 2-3kg, staple length 6-9cm, quality 50's-56's
- Ewes are milky and good mothers; lambing percentage close to 100% but the breed is capable of out of season breeding
- Easy to handle, biddable nature

The Portland Sheep Breeders Group. Formed in 1993 to promote the breed, and to provide a forum for discussion and research amongst breeders, the group currently represents some 70 flocks. Members receive an information pack on joining, containing information and advice on the Breed, and a newsletter three times a year. The Group organises events such as workshops, and promotes the breed via the display stand and support for breed classes at shows, and by its regional organisation. A five year programme of Research and Promotion of the Portland Sheep is being undertaken.

For further details contact either the Secretary or the Membership Secretary: Mrs Michelle Jones, Hoghester Farm, Wootton Fitzpaine, Near Charmouth, Dorset DT6 6BY. Tel: 01297 561072.



Romney

❑ Description

The Romney is a large framed sheep and carries a heavy longwoolled fleece. It has a broad white face, some with a small woolly 'top knot'. Both sexes are hornless.

❑ History

Like so many other domestic animals, the breed is named after its local area. The original Romney Marsh sheep were developed on low lying land in Kent and Sussex, adjoining the English Channel. The area was, and still is, exposed and isolated, so that a hardy breed of sheep was produced requiring the minimum of attention. They have little interest in straying off and require a minimum of fencing.

The breed expanded over the rest of South East England, and became known as Kent sheep. It then spread all over the world, and the name Romney came into general use. The vast sheep industries of New Zealand and other countries had their origin in the Romney. For this reason it is often referred to as 'the best known sheep in the world.'

As Britain's most numerous lowland breed (over 200,000 breeding ewes), Romneys have spread from their traditional area, and are now well-known outside Kent and East Sussex, their ancestral home.

❑ Main Purpose of the Breed

They are big sheep (ewes up to 73kg (160lb), rams 100kg (225lb) with a heavy longwoolled fleece (4-5kg). Wool has always been a major consideration with the breed, right back to the heyday of wool smuggling in the 17th Century. The quality and fleece weight is always assessed carefully at all the ram shows and the Breed Society makes special awards. Between 500,000 and 550,000kg of Romney wool are produced and sold to the British Wool Marketing Board each year. Romney lamb wool is particularly sought after to produce fine wool baby wear.

They have all the attributes one expects from any lowland sheep under good management, with the added advantage of a plentiful supply of stock available to purchasers. The majority of Romneys are in pure bred flocks, using recognised terminal meat sires on a proportion of the ewes. Other breeders find the size and conformation of Romney ewes ideal for crossing to produce halfbreeds which are then used for meat lamb production.

The breed's tolerance of tight grazing systems generates a high output of meat per acre. Pastures based on Kent Wild White Clover are particularly suited to intensive grazing.

❑ General Information

The large numbers of Romney ewes, rams and lambs forward for the autumn sales at Ashford, Maidstone and Rye, make it a practical proposition for farmers to select all the animals they require.

An active Breed Society (numbering 150 members) not only maintains the pedigree registers that ensure a regular supply of top quality rams, but also is involved with the commercial breeders, by sponsoring classes for commercial sheep at the summer shows, and the Christmas carcass competitions.

The annual flock competition has classes for registered and unregistered ewes. The winning flock is the venue for a Society Field Day.

The Society also led the way, in setting up a co-operative breeding scheme using the latest advances in animal genetics. A number of the leading ram breeders established the Romney Group Breeders' Flock at Wye College (the agricultural faculty of the University of London). This co-operative venture was aimed at increasing lambing percentages by genetic improvement, combined with the very highest husbandry standards. Very positive results were obtained and an annual crop of rams with high 'Predicted Breeding Values' were taken back by the members of the Group, thus spreading their increased fertility to the whole breed. The development work then moved on to Ram Lamb Performance Testing. Commercial breeders are benefiting from these projects.

As an international breed, Romney flockmasters are very export minded. Prospective purchasers are always welcome to visit flocks and make their selections. The Society has a marketing officer who will undertake to find sheep to meet given specifications in large or small numbers. Current work in Genotype Scrapie monitoring will help this export trade.

For over 100 years all registered Romney breeding sheep have been individually inspected and earmarked by the Official Society Tattooist. Their breeding has been recorded in a Flock Book, produced annually. From these records, all exported sheep are provided with an individual Export Pedigree Certificate, signed and sealed on behalf of the Society.

An associated exporting agency specialises in sending Romneys all over the world and will take care of all the documentation, quarantine and despatch of stock.

The Romney Sheep Breeders Society

Rouge de L'Ouest



Rouge de L'Ouest

□ Description

The Rouge is a medium sized breed of excellent conformation without excessive bone; as its name suggests its head, which is hornless, can vary from pink to deep red and is covered with fine hair.

The breed is strong and deep through the chest with good length in back and loin, but it is the exceptional hind quarter and muscling that are immediately recognisable as the powerhouse of the Rouge. The legs are clean and well positioned, and are a similar colour to the head and are covered in fine hair. The fleece is fine with a short staple which grows into a dense 'jacket' giving the breed ample protection against the harshest weather.

□ History

The Rouge de L'Ouest was one of several breeds to arrive in Britain in the mid 1980s.

Hailing from the Loire valley in France, the Rouge was originally kept as a dairy sheep to produce Camembert cheese as the breed is renowned for its rich, thick milk. French breeders however concentrated on breeding their animals for superior conformation, whilst retaining prolificacy and milkiness and these attributes rarely seen together in one animal were the primary reason for the breed's introduction to the British Isles.

❑ Main Purpose of the Breed

The Rouge is promoted in the British Isles on its 'flexibility and versatility' as a breed that can fulfil a dual role, offering commercial sheep producers a variety of marketing options.

The Rouge is primarily a terminal sire breed, and it is in the production of top quality prime lamb that it has gained supporters who demand high profits from lamb production.

The versatility of the breed enables Rouge sired lambs to meet the requirements of the early, mid-season or late autumn and winter markets for quality prime lamb. Growth potential is top priority for those seeking high value output from early lambing flocks. The Rouge will easily produce a 19kg carcass lamb at 100 days, and hoggets for later finishing will comfortably reach much greater weights, without getting overfat. The fleshing and leanness of prime lambs sired by the Rouge attract discerning butchers and supermarket buyers seeking a high value carcass with light bone and no fat, giving high meat to bone ratio.

The breed is also widely used as a producer of quality commercial breeding females.

❑ General Information

Pure Rouge ewes are maternal and very prolific and milky. Pedigree flocks consistently average above 200%. Scientific research has proven that these traits are passed on to the offspring, valuable attributes when used to produce quality commercial breeding females when crossed with other breeds. Discerning flockmasters all over the country are using the Rouge for this purpose and with much success, as they search for the ideal commercial ewe of superior conformation that is also prolific and milky.

Because of a lack of excessive bone, both pure and crossbreds are renowned for their trouble free lambing. Lambs by the Rouge are easily born and are quick to their feet. They are sharp and vigorous and are determined to survive and suck within minutes of being born, making the breed an ideal choice for use on ewe hoggs.

Rouge rams are famous for their virility and are tireless workers. Scientific evaluation has shown that the breed's high level of fertility is even passed on by the ram, which, when used as a crossing sire can boost lambing percentage.

Profitability is largely dependant on the number of lambs sold and the price achieved. Using a Rouge gives more live lambs and the option to sell them when you want to — not when you have to.

Prolificacy

Mature ewes	200%+	Carcass Weight at Slaughter	17-25kg
Birthweight		Adult Bodyweight	
Single	6-7kg	Mature ewe	75-100kg
Twin	5-5.5kg	Mature ram	100-140kg
Triplet	4.5-5kg		

❑ Further Information

Rouge breeders formed the Rouge Sheep Society in 1986 with a view to maintaining the breeds purity and promoting its improvement.

The Society is a registered charity.

The Society published an annual Flock Book/Year Book and promotional literature relating to the breed.



Rough Fell

❑ Description

A horned black head with a definite white patch on the nose. The body is large and long with a broad loin, strong frame and legs with a noble carriage.

❑ History

The Rough Fell is a derivative of horned blackfaced heath sheep, found in the uplands of Northern Britain in the middle ages, but following crossing with now obsolete breeds in the locality and the evolution of time we arrive with the Rough Fell breed we now know.

The first mention of the breed with a class of its own at an agricultural show was at Sedburgh in the Yorkshire Dales in 1848.

The Breeders Association was formed in 1927.

❑ Main Purpose of the Breed

This exceptionally docile sheep excels in hardiness and has no equal in its power to exist under adverse conditions. It is well fitted to endure the hardships of the mountains and valleys of Northern England including the Lake District and the Yorkshire Dales.

Drafted to lower ground, the Rough Fell is a dual purpose breed and found in many Counties of the United Kingdom. They are ideal for crossing with the Bluefaced Leicester, Teeswater and Rouge de l'Ouest, for producing quality halfbred females. They also provide prime finished

lamb, as will Suffolk, Charollais and Texel crosses.

Quiet and easy to handle, the Rough Fell ewe can lamb indoors or outside making perfect mothers, easily rearing twins. The pure and cross-bred lambs are in demand at finished and store markets due to its superior carcase, many weighing 21.5kg off their mothers in August from grass alone.

A fleece of white wool of 2kg average per ewe is used for carpets, also exported to Europe for mattress production. The breed has won the Best Exhibit in the Hill Wool Classes at the Royal Show, Great Yorkshire Show and Smithfield Show.

This Association feels that the popularity of the breed indicates a bright future for Rough Fell sheep, not only in the region of their origin, but also in the United Kingdom, Europe and abroad.

❑ General Information

<i>Average Prolificacy:</i>		<i>Hill</i>	<i>Upland</i>	<i>Lowland</i>
Ewe lambs	%	n/a	n/a	n/a
Shearling ewes	%	120	150	170
Mature ewes	%	140	160	180

Average Birthweight of lambs:

Singles	4.4kg
Twins	3.8kg

Carcase weight of lambs at slaughter:

Carcase weight	21kg at 20 weeks EDCW
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Average Adult Birthweight:

Mature ewe	50kg
Mature ram	80kg

❑ Outstanding Qualities

<i>Constitution</i>	Strong, hardy and long lived.
<i>Crossing</i>	Ideal for crossing. Fine breeders of greyfaced lambs.
<i>Docity</i>	Quiet and easily handled.
<i>Mothering</i>	The ewe is altogether a perfect mother.
<i>Milk</i>	The ewes are excellent milkers and easily rear two lambs, many of which are sold from their mothers at 16 weeks.
<i>Carcase</i>	Both horned and crossbred lambs prove popular with butchers.
<i>Wool</i>	The wool is a high quality grade 32.
<i>Habitat</i>	Found outdoors on a wide range of land, but mainly upland. Will adapt easily to being housed if required.
	<i>Altitude:</i> 0m to 750m (0ft to 2,500ft).
	<i>Annual Rainfall:</i> 0.889m to 2.032m (35 inches to 80 inches)
<i>Scrapie</i>	The Rough Fell as a breed is naturally less susceptible to scrapie and therefore can be used with confidence.



Roussin

❑ Description

This medium sized breed has a brown face and legs. The head and legs are free from wool. Both sexes are polled.

❑ History

The Roussin originated in the La Hague area of France from crosses between local breeds and the Dishley Leicester and Southdown. In 1960 the breed was further developed by the use of the Suffolk and Avranchin breeds. In 1977 the breed was closed and characteristics stabilised. The French breed society was formed in 1978. (*Source: Races Ovines*).

The breed was first imported from its native France to the British Isles in 1989, with the representative breed society now having 55 members.

❑ Main Purpose of the Breed

The breed's main market is in the production of crossbred females from the major hill breeds. The ram transmits prolificacy and conformation to the crossbred ewe enabling her to produce quality prime lambs when put to a terminal sire. Roussin is now recognised as an outstanding sire for ewe lambs.

Purebred or crossbred Roussin carcasses have good conformation and compete well with other breeds and crosses.

❑ General Information

Average Prolificacy: 180%

Adult Bodyweight:

Mature ewe 70-90kg

Mature ram 90-110kg

Average Carcase weight: 19-20kg

Average DWG to 100 days 0.35kg

Wool Clip:

Staple length 5-7cm

Average fleece weight 3kg

(Source: All statistical information taken from Roussin Sheep Society, Glentara, Closeburn, Thornhill DG3 5JT)

❑ Outstanding Qualities

The Roussin ewe is hardy and prolific. She will lamb easily, producing strong lambs with a good birth coat (pure or crossbred) and a tremendous will to live. The ewe's abundance of milk gives her lambs the best possible start, and a good growth rate.

The Roussin ram is also hardy and prolific, transmitting these qualities to crossbred offspring. This results in halfbred ewes capable of producing prime lamb when put to terminal sires and wether lambs with a carcase conformation that meets modern butchery requirements.

The breed also produces a white, quality wool clip.

Having developed in a coastal area of high rainfall and strong winds, the Roussin can adapt to many conditions and management systems, producing excellent results whether pure or crossbred.



Ryeland

❑ Description

Head:	Medium length, with no trace of horn.
Face:	Well woolled.
Ears:	Medium size, slightly dark in colour.
Neck:	Strong and broad.
Shoulders:	Neatly laid into general outline of body with no depression behind.
Chest:	Broad and fairly deep.
Back:	Straight and level.
Legs:	Dull white colour, well woolled to knee and hock.
Feet:	Strong, compact, renowned for freedom from footrot.
Fleece:	Dense with pink skin, free from dark fibres, coarseness and kemp.

❑ History

The Ryeland was developed in Herefordshire some 800 years ago by the Monks of Leominster. It is reputed that the wool in the Lord Chancellor's Woolsack is Ryeland. The fleece frequently today wins Inter-breed competitions.

The breed has been exported to Australia, New Zealand, South America and today is becoming popular in Europe, especially Holland.

❑ Main Purpose of the Breed

The Ryeland has always been valued as a dual-purpose breed. It's wool has always been of great importance. It's fineness and crimp makes it ideal for home spinners. The breed's meat qualities has always been recognised for its excellent eating texture and today one breeder supplies members of the Royal Family and top-class eating houses with pure and crossbred lamb.

The rams are used on Welsh Hill ewes for the production of quality lightweight carcasses for the Southern European Market. When used on the smaller Minority and Rare Breed ewes, especially the Shetland, the carcasses of 12-16kg are well fleshed with deep hindquarters and sufficient cover to produce premium prices.

The Ryeland ewe is a protective mother producing vigorous lambs with a will to live, which mature at 12-16 weeks.

The fine creamy wool which is free of black or grey fibres, command top of the range prices.

❑ General Information

Lambing Proificacy: ✓ 150-160%

Average Bodyweight:

Rams 75-80kg

Ewes 50-60kg

Fleece:

Staple length 8-10cm

Weight 2-3kg

Quality 28-32 microns

Carcase Characteristics

The rams produce excellent quality light to medium weight carcasses, either pure or cross with high percentage of meat to bone and sufficient fat cover for the modern 21st Century household.

A pure Ryeland carcase won the medium weight class at the Royal Smithfield Show and a cross bred carcase won the Royal Welsh Winter Fair British Breeds class.

❑ Outstanding Qualities

This breed excels in both flesh and wool, being particularly noted for its docility, which tends for easy management, it's robust in constitution, it's outstanding in productivity, general soundness and hardiness.

When used as a terminal sire, it's small, compact conformation leads to fewer problems at lambing time. The purebred ewe also lambs easily, and having plenty of milk, ensures that the vigorous lambs have a good growth rate.

The breed's characteristics further contribute to ease of management with the dense covering of wool over the face, helping to prevent fly strike, and the compact, strong feet being noted for freedom from footrot.

The Ryeland is a compact, dual purpose breed, adaptable to most lowland conditions and systems, easily meeting the requirements of both modern meat and wool industries.

In the 1990's, a small group of breeders have formed a 'Coloured Section'. These are very attractive sheep, varying in colour from light grey to black, generally with a mealy coloured nose. Their wool is very much sought after with home spinners.



Shetland

❑ Description

The Shetland is one of the smallest of British breeds of sheep. The ewe is usually hornless, and the ram has nicely rounded horns, not too heavy, nor too close together. The head is well carried, the face is of medium length with straight nose and bright eye, the back is straight and of medium length. The breed is composed mainly of white faced, white woolled sheep but there are small numbers of moorit (moor red) sheep which produce varying shades of wool.

❑ History

The breed has existed on the Shetland Isles since time immemorial, and is believed to have Scandinavian origins, indeed it retains strong similarities to the northern breeds of China, Scandinavia, Ireland and the Faroe Isles, retaining many of the characteristics of wild sheep.

The Shetland Islanders developed their small multi-coloured sheep to produce a very fine, soft wool, of a vastly superior quality to that produced by most British breeds. The well-known Shetland woollen industries of knitting and weaving were established on the basis of the breed's fine quality wool.

The Shetland Flock Book Society was formed in 1926, the object being to retain the traditional quality of the wool, to maintain a hardy, healthy, robust stock and to increase the mutton yield of the breed.

❑ Main Purpose of the Breed

The traditional role of the Shetland breed has been as a hill ewe producing fine quality wool and prime mutton. Hill bred wether mutton is claimed to be unsurpassable by some connoisseurs, while the more forward pure bred lambs weaned off the hill and give a six to eight week fattening period produce a prime carcase of 22-24lb.

More recently, in conjunction with hill land improvement, and the consequent higher level of management which this makes possible, the Shetland ewe is playing an increasingly important role as a producer of cross-bred lambs, either of first cross lambs for sale, or more commonly for the production of the Shetland-Cheviot, a first cross ewe which has proved ideal for further crossings with Cheviot or Suffolk rams.

The wool produced by the Shetland has always been a valued commodity. The breed produces several shades of wool, including white, moorit (moor red), skiela (brown grey), fawn, grey and brown. It is this variety which was so commercially important to the wool industry of the Islands where natural wools are often used undyed — a significant characteristic of the famous, high quality Shetland knitwear and the softly coloured tweeds. With the decline of the cottage industry in recent years, an increasing proportion is now used for blending purposes.

Recently, Shetland ewes have been put to Est à Laine Merino rams as part of the Scottish Fine Wool Project in which ewes with white fleeces of the highest quality have been used. As the Shetland has a low fleece weight, it is hoped that a heavier, fine wool fleece will be produced giving greater income per fleece.

❑ General Information

Average Prolificacy: On the poor grazing of the breed's native Isles the lambing percentage reaches about 130%. However, when the ewe is given the opportunity of better pastures and therefore a higher feeding level, she is capable of a greatly improved performance.

Average Carcase Weight: 10-12kg

Average Adult Bodyweight (on Shetland Isles):

Mature ram 45kg

Mature ewe 35kg

Average Fleece Weight: 1-1.5kg

❑ Outstanding Qualities

The breed is noted for the fineness and softness of its wool and the excellent quality and flavour of its mutton. As a hill breed it has retained the essential characteristics of an active habit, hardiness, milking qualities and longevity and is therefore well suited to the exposed Shetland weather conditions and the rocky, heather clad grazings many of which are of poor quality.

On a national basis, the Shetland is classified as a 'rare breed'. It is unlikely, however, that it will ever be supplanted in its native area where the breed will remain as a pure bred stock under the harsher hill conditions or as a parent stock for the production of cross ewes and lambs under more kindly conditions.

The limited numbers of Shetland and Shetland cross ewes which are sold from Shetland for breeding purposes have shown their thrift, versatility and potential under a wide range of conditions.



Shropshire

□ Description

The Shropshire is medium in size, with typical mature rams and ewes weighing 120kg and 80kg respectively. Shropshire sheep are active and alert, with good motivation.

Head: Naturally clean and soft black face, with a covering of wool on the poll. Rams should possess a bold masculine head. Ears should be soft, black and well set on.

Body: Well-fleshed, long, deep and symmetrical. Having a broad straight back with well-sprung ribs. The rump and quarters are long and wide with dock well set on.

Legs: Medium in length, of strong bone and upright joints, well set apart and soft black in colour.

Skin & Wool: Cherry skin covered in dense, fine quality wool weighing 3-4kg with an average staple of 10cm.

□ History

The Shropshire emerged in the 1800s, having been developed from several breeds popular in the West Midlands and Welsh border counties, to become the supreme sheep breed of the late 19th Century. Today's active Shropshire Sheep Breeders' Association and Flock Book Society has the distinction of being the '**Oldest sheep breed society in the world**' being founded in 1882 and publishing the first Flock Book a year later.

❑ General Information

Shropshire sheep adapt to every soil and climate. They flourish throughout the British Isles, from the English lowlands to the highlands and islands of Scotland, in the humid climate of Ireland and mountainous areas of Wales, frequently at an altitude of 1000ft above sea level.

In recent years export sales have established a new European profile for the breed, Shropshire's being sold to Austria, Belgium, Denmark, France, Germany and Ireland.

Major factor is the Shropshire's outstanding ability to graze reliably amongst conifers without damaging the trees. This has been borne out on large plantations in Scotland, Ireland and Scandinavia (information pack available).

The Shropshire's prime attribute is its ability to meet conformation and lean meat requirements and gain weight mainly off grass.

In a recent analysis of results in the 1994 Trial at Walford College of Agriculture, of Shropshire Rams on North Country Mules lambing in March, no less than 95% of the resultant carcasses were in fact classification 2 and 3L, compared with the 1994 MLC all-lamb average of 67%.

❑ Outstanding Qualities

The modern Shropshire has many desirable qualities which combine to make it a force in today's market:

Rams are renowned terminal sires. Hardy & long-lived, they are hard working being able to work early for December lambing. They are robust with good conformation.

Ewes make excellent mothers, having a good supply of milk, rearing doubles with ease and producing lambs over many years with very little difficulty. Docile with a sound constitution, they are extremely hardy, enabling efficient flock management involving minimal time and effort.

Prolificacy, achieving consistent 160% lambing.

Lambs at birth (6-6.5kg) are strong and active with a real will to live. Most finish readily off grass in 12-16 weeks, at a carcass weight of 16-20kg with a high percentage of lean meat.

Resistance to many ailments, reducing veterinary costs.

❑ Breed Developments

The Society is always looking to promote and progress the breed and is currently concentrating on animal health issues.

❑ Official Show and Sales

The SSBA has its own Society Breed Show with breed classes at many major agriculture shows including the English and Welsh Royals and openly competes with great success against other breeds.

Shropshire Rams are sold at both NSA Ram Sales. The Society has its annual Show and Sale at Stoneleigh in September. Shropshire's took the lead in 1997 being the first Scrapie Monitored sheep to be allowed entry at Stoneleigh. This proved to be a huge success with keen buyers from around the country taking part.



Soay

□ Description

The wool is soft and fine, but hairy fibres are usually interspersed among the wool fibres. The staple length is 5-8cm (2-3 inches), and the Bradford Count is 44-50. The fleece is shed naturally. Rams develop a thick hairy mane. The wool is either chocolate or fawn, and animals may be either whole-coloured or show the 'Mouflon' pattern. Chocolate brown and the 'Mouflon' pattern are dominant. Some black animals occur and these are always self-coloured. There may also be white marks on the face, poll and lower legs, and occasionally piebald.

The face and legs are brown or tan, with lighter marks over the eyes and on the muzzle and the lower jaw. The face is 'dished'. Rams are two-horned and the horns are strong. Ewes are either two-horned or polled.

□ History

The Soay is the most primitive breed of sheep and belongs to the Northern short-tailed group of breeds.

□ Main Purpose of the Breed

In commercial systems the Soay has been used mainly for the reclamation of low fertility grazing and in 'easy management' systems. It is very adaptable, does not have lambing problems, is resistant to footrot and flystrike and sheds its wool naturally. It is also a productive animal. Its

milk yield is very high relative to its body size, and it achieves a lambing percentage of about 150%. The efficiency and profitability of its small body size is best utilised when crossed with a Down ram.

❑ General Information

The weight of mature ewes varies, but averages 25kg (55lb) while rams average 36-38kg (80-85lb). The animals are fine-boned and late maturing, with prominent withers. The tail is short and thin.

The purebred Soay produces a small, lean carcass which is well suited to speciality niche markets.

For further information about this breed contact the Rare Breeds Survival Trust.



The Soay Sheep/Rare Breeds Survival Trust



Southdown

□ Description

The Southdown is a very compact sheep and should have 'a leg at each corner', well fleshed down to its hocks. With a wide level back through to tail.

Head: Ears small, covered with short wool. The colour of the face and legs should be mouse NOT dark brown.

Wool: A fine texture of great density covering the whole body down to hocks, knees and cheeks but NOT around eyes or bridge of nose.

Skin: Pink apart from nostrils which should have a black 'star' on.

□ History

The Southdown sheep has roamed the Sussex Downlands from time immemorial.

Around 200 years ago, John Ellman of Glynde near Lewes in Sussex commenced a radical improvement of the breed, by selection within the flock — no outcrossing. His work was so successful that his sheep were in demand countrywide and worldwide. His work was continued by Jonas Webb of Babraham in Cambridgeshire, who developed a somewhat larger animal which was used in the creation of many of the other Down breeds.

The peak of the Southdown's popularity was from mid-19th Century to the 1914 War. During this time they were to be found on many of the large estates in flocks of 1,000 or over, apart from

being in the possession of Yeoman farmers. Between the wars a smaller woollier headed Southdown came into fashion, chiefly to satisfy the American demand. Although it has been exported to many parts of the world, probably it had its greatest impact in New Zealand where it was the foundation sire used in the promotion of the 'Canterbury Lamb' a position it held for many years.

The Southdown of today has returned to a larger more active sheep partly due to the re-introduction of New Zealand blood twice in the last 30 years.

❑ Main Purpose of the Breed

The Southdown bred pure will produce a fast growing prime lamb in record time.

Crossed on any breed of ewe the resulting lamb will have a carcase of fine conformation and high grade if marketed correctly.

Southdowns excel if mated to ewe lambs of any breed resulting in a slightly smaller active lamb demanding less from its dam.

❑ General Information

Average Prolificacy:

Early lambing	155%
Later lambing	200%

Birthweight:

Singles	4.00kg
Twins	3.75kg

Carcase Weight:

Prime lamb	12-18kg
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Adult Bodyweight:

Ewes	59-68kg (130-150lb)
Rams	90kg (200lb)

Fleece weight (greasy):

Ewes	2.0-3.5kg (4.5-8lb)
Rams	3.5-5.5kg (7.0-12lb)

Staple Length:

4-6cm

Quality:

56's-60's

❑ Outstanding Qualities

Its greatest quality is to pass on superb conformation to its offspring and to thrive and maintain its flesh where many other breeds would starve.

The inherited tolerance to close confinement in fold or shed, it being docile and easy to handle. Ideal sheep for the lady shepherdess who is left at home to care for stock.

Auction and Breeders Sale List obtainable from Secretary.



The Southdown Sheep Society

South Wales Mountain



South Wales Mountain

❑ Description

The breed is similar in appearance to the other Welsh Mountain breeds. The main differences are its greater size and the usual presence of tan markings on the face and legs together with a brown collar. The fleece is dense with an even mixture of white kempy fibre.

❑ History

South Wales Mountain sheep are native to the hill areas of Glamorgan, Monmouthshire, Carmarthenshire and South Powys. The breed is also occasionally referred to as the Nelson or Glamorgan Welsh. During the first half of the 20th Century a Flock Book existed which included all the Welsh Mountain breeds. However, due to their diversity in type, this situation eventually ceased and a separate society was established in 1948 to promote and develop the breed.

❑ Main Purpose of the Breed

The South Wales Mountain sheep is a dual-purpose breed. Their hardiness and ability to thrive on the open hill and common grazings of their native area ensures the continuing popularity of the pure bred sheep. The rams are frequently used to improve the size and conformation of the other Welsh Mountain breeds. When crossed with a Down ram, the South Wales Mountain ewe produces ewe lambs much sought after as lowland breeding ewes. They are hardy, prolific, sound of foot and good milkers with strong conformation. Sires which are commonly used for

producing these halfbred ewes include the Suffolk, Bluefaced Leicester, Border Leicester and Charollais. Ewes mated to such rams pass on their hardiness to the progeny which can thrive in the same conditions as their mothers.

□ General Information

Few breeds of sheep can rival the South Wales Mountain ewe as an excellent mother and deep milker, thus producing fast growing lambs. In the higher hill areas, it is not the usual practice to put ewe lambs to the ram. However, where this is done, the average lambing percentage is 80%. In their native areas, shearling ewes average 120% lambing and mature ewes 135%. Where ewes are kept in more favourable conditions lambing percentages are considerably higher than these figures are common place.

South Wales Mountain lambs are well renowned for being vigorous at birth and their thick woolly coats can withstand the harshest that the elements can produce. The lambs are early maturing and produce a fine lean carcase of excellent flavour.

The breed is the largest of the Welsh Mountain sheep with mature rams averaging 75kg liveweight and ewes 50kg.

South Wales Mountain sheep have been reared on the harsh hill pastures of South Wales for generations. Their ability to thrive where lesser breeds have failed has ensured their predominance in the area. This natural 'survivability' means that they are excellent converters of grass to meat.

The members of the South Wales Mountain Sheep Breeders' Society have operated a flock recording scheme for many years. Lambs are individually tagged and dams and sires recorded. By this means, a high health status has been maintained in flocks and genetic improvements have been possible. This health status is now being reinforced by the widespread use of Scrapie Genotyping amongst the flocks of the principal breeders.

□ Breed Developments

A programme of flock improvement is ongoing in order to build on the many strengths of the breed and to further enhance carcase conformation and liveweight gain from grass. Ram performance trials have been conducted in conjunction with MLC/Signet since 1994 and the results are summarised below.

	Average liveweight gain (kg)	Top 10% gain (kg)	Top 10% Eye Muscle depth (mm)
1994/95	14.5	20.6	30.0
1995/96	16.2	23.7	28.8
1996/97	18.5	22.8	33.2

The first sire reference scheme was initiated during Autumn 1997.

The pure bred South Wales Mountain has the size and conformation to rival many of the hill breeds and when crossed with terminal sires will produce early lambs in the 16-18kg deadweight range which are ideally suited to modern trade requirements.



Suffolk

❑ Description

The Suffolk is a polled breed, with a distinctive all-black head and legs, and single colour close cropped white wool. Independent trials show that Suffolks have the fastest growth rates of the terminal sire breeds.

❑ History

The Suffolk was first recognised as a pure breed in 1810, having evolved from the mating of Norfolk Horn ewes with Southdown rams. The Suffolk Sheep Society was formed in 1886 with the breed's first Flock Book published the following year, containing a total of 46 flocks. The 1997 Flock Book contains 2,149 registered flocks. The breed is present in all established sheep-meat producing countries throughout the world with Suffolks from the UK in recent years being exported to the following countries: Austria, The Azores, Belgium, Czechoslovakia, France, Germany, Italy, Kenya, Netherlands, Poland, Portugal and Spain.

❑ Main Purpose of the Breed

The Suffolk is valued as the country's number one terminal sire breed, being used in over half of all commercial flocks. Crossed with lowland ewes it produces lambs which mature early and can secure the premium price paid for the first spring lambs on the market. Suffolk cross lambs reach sale weights earlier than other crosses and commercial producers can sell lambs straight off their

mothers milk — as young as 10 or 14 weeks of age. Lambs sold later at heavier weights maintain the desired well-fleshed and lean carcase.

In the store lamb sales Suffolk crosses attract a premium; they are able to respond quickly to improved nutrition.

The increasing popularity of the Suffolk cross ewe for use in commercial flocks is an added bonus for the breed. Suffolk cross ewes perform well in early lambing flocks and add extra quality to the conformation of the lambs they produce.

❑ General Information

Average Prolificacy:

Shearling ewes	158%	Mature ewes	171%
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Average birthweight of lambs:

Singles	5.4kg	Twins	4.5kg
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Carcase weights of lambs at slaughter:

Carcase weights	17.5-20kg
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Average adult bodyweight:

Mature ewe	84kg	Mature ram	130kg
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The average wool yield is about 3.2kg

❑ Outstanding Qualities

Having been around for 200 years (the first recorded mention of a Suffolk was in 1797), the breed clearly has a substantial degree of enduring quality.

Throughout its history it has evolved to meet the changing needs of the market place but has always retained its ability to produce butchers lambs with a high quality of conformation.

In recent years, Suffolk breeders have been involved in research and development projects at various respected seats of learning, both in the UK and abroad. Trials have been carried out in the Edinburgh School of Agriculture, Aberystwyth, Wye College, Loughgall in Northern Ireland, and on the University of Newcastle's Redesdale Experimental Farm. In some instances the objective was to identify superior stock; in others the aim was to assess what had already been achieved. In all cases the results have been utilised to make new sire selection and breeding adjustments based on hard commercial evidence.

The breed has been a leader in Sire Referencing in the UK. The Suffolk Sire Reference Scheme was started in 1989 and in conjunction with Signet the latest techniques are used to identify superior stock within and between over 50 member flocks.

Across the country and throughout the season Suffolks attract large entries in the show rings. The Suffolk breed Champions often go on to take the Interbreed Sheep Championships. Primestock shows also regularly have Suffolks at the top of the line. The 1997 Centenary show of the Scottish Winter Fair was won by a pair of Suffolk cross lambs.

The popularity of the breed has produced a high profile demand for top class stock. In 1995 a Suffolk ram lamb broke the record for any breed of livestock sold in the UK at that date, when it made 68,000gns at the breed's Edinburgh sale. In 1997 the Suffolk female record was broken when a ewe lamb sold for 23,000gns.

These prices are the exception and less expensive stock is available from breeders or at auction.



Swaledale

❑ Description

Head: The face is of medium length, strong in feature. The upper part of the face is dark complexioned, the lower part grey or mealy. Eyes are quick and bright, the hair on the face short and strong, a deep jaw and short broad teeth. This type of sheep grows greyer with age. Horns set low, round and rather wide. Ears of medium length.

Wool: White except at the back of the head where it is mixed with part black, with a thick deep bed and curly top of medium length, not coarse, and growing down the shanks. The wool has a good bind and fills the hand well. The coarse hairy fleece has almost been eliminated and the wool in general is uniform in character.

Tail: Thick, long and woolly.

Legs: Good flat bone of medium length, well set four square, with well shaped hocks, grey or mottled in colour, with good sized feet. Walks well.

❑ History

The Swaledale Sheep Breeders' Association was first registered in 1919 and little information about the history of the breed seems to have been recorded prior to this date, but it is a well known fact that a group of shrewd farmers on the borders of North Yorkshire and Westmorland had specialised for generations in breeding sheep of this type, selecting their rams with great care, with a view to producing sheep suitable for the environment in which they had to live.

From these selective beginnings the original stocks can be traced today in all pure Swaledale sheep. The Association has grown steadily from these humble beginnings to its present proud position of registering some 80,000 pure Swales each year.

❑ General Information

Average figures show that lambs born at around 4kg can achieve weekly liveweight gains of 1kg. Lambing percentages vary from 100% in harsh exposed conditions on the hill to 150% on better grazings. Lambs finished off their mothers can kill out around 16kg at 20/25 weeks. The meat is lean and rich in flavour. Lean lightweight wether lambs have proved increasingly popular as live exports or lightweight carcasses for Southern Europe, yet still have the capability to reach heavier weights. Many wether lambs are housed finished providing popular carcasses as hoggets.

The Swaledale Sheep Breeders' Association has set up a Scrapie Gene Testing Programme in conjunction with CVL to provide scrapie resistant stock, through DNA Testing. This scheme has been taken up by nearly all ram breeding members with the result that only resistant rams are to be used within the breed.

❑ Outstanding Qualities

Swaledale sheep have proved themselves to be very hardy, well fitted to endure exposure on high lying moorland, whether heather or 'white' ground. Being of an alert and active nature they are splendid foragers, and make excellent use of the herbage which the fells and moorland provide.

The outstanding merit of the ewes is their ability to reproduce and rear offspring on an environment which has proved unsuitable to most breeds of sheep. They give crops of lambs on the hills for the first three or four years of their productive life, and in their mature years serve farmers on lower slopes and richer land by producing good crops of bigger lambs for three or four years more.

They give a fleece of wool weighing approximately 2kg which wears well and is of even texture. The wool clips find a regular market for making carpets and the manufacture of woollen tweeds, also knitting wools.

The demand for the draft ewe is tremendous and her mating with the Bluefaced Leicester producing the celebrated North of England Mule, Britain's most numerous and successful grassland ewe, is now recognised as second to none. With the Teeswater as sire, the noted Masham is also highly recognised. Often in the last years of reproductive life on the best land, crosses with the Suffolk and Continental rams produce good feeding lambs.

As foundation stock for the National flock the breed has a record of which it can be justly proud, its all round balance of milking, mothering, mutton and easiness in shepherding coupled with its adaptability in various conditions is second to none. The huge demand for these sheep proves increasing numbers of flockmasters are delighted to farm with Swaledales or their crosses.



Teeswater

❑ Description

The Teeswater, a large hornless breed, carrying a fine, long-stapled, natural white lustre, kemp-free fleece, has an off-white face with dark brown markings around the eyes and nose-end, but the face may also be a grey-ish blue.

❑ History

From small beginnings . . . Teeswater sheep, indigenous as their name implies to Teesdale in the County of Durham, have for almost 200 years been bred by farmers in that area of the North. Until the 1920s the breed was a comparatively rare one and was not found far from its native habitat, but now that the remarkable crossing qualities of the breed have been consistently improved and developed, Teeswater and Teeswater half-breds (Masham) are to be found in almost every part of the UK.

❑ Main Purpose of the Breed

Since the beginning of the century at least, the Teeswater has been bred with the primary object of producing rams for crossing with ewes of other hill breeds, such as Dalesbreds, Swaledales, Rough Fells and Scottish Blackface to produce the Masham. The gimmer lambs from such a cross are much sought after for their great potential as ewes, being good milkers, excellent mothers, and capable of rearing two lambs under varying conditions.

When Masham ewes are crossed with a ram of the Down breeds, the resultant lambs are unsurpassed for producing good quality carcasses of first grade lamb.

Breeders of Teeswater sheep have for many years been rightly jealous of the reputation of the breed and the part it plays in the sheep world, and consequently have followed a very strict code of breeding sheep to produce the desired qualities, heavy milking and prolific breeding.

Many pure Teeswater flocks consistently average 250% lamb crops and this, coupled with the fact that they have a long breeding life makes it possible to cull the females heavily ensuring that only the best strains are retained for breeding purposes in pure flocks. Teeswater rams are very seldom used for pure breeding until they have first been progeny tested and proven as outstanding sires of Mashams.

Breeders of Teeswater sheep have developed this progeny testing of rams into a very fine art and this, coupled with the fact that the breeding of all pure bred pedigree Teeswater sheep can be authentically traced back to volume I of the Flock Book on the dam's side as well as the sires, provides a very useful guide to purchasers of the breeding potential of the rams offered.

☐ General Information

Average Prolificacy:

Ewe lambs	100%
Shearling ewes	200%
Mature ewes	250%

Average birthweight of lambs:

Singles	7kg
Twins	6kg

Carcase weight of lambs at slaughter:

At 20 weeks	21kg
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Average adult bodyweight:

Mature ewe	80kg
Mature ram	100kg

☐ Outstanding Qualities

Teeswater are renowned for their longevity, having a sound mouth and realising a good market value when sold cast. They pass on to their progeny longevity, milking ability and the weight and quality of their fleece. Lambs can be taken on to heavier weights and still retain their leanness.



Texel

❑ Description

The head should be covered with fine white hair with only the occasional black spot on the ears. The nose should be black and the ears carried at ten-to-two. A short neck, well fleshed loin, square quarters and well rounded gigots are features of the body. The wool is highly crinkled with a dense, medium length staple and the legs should be of medium bone on deep hard black feed.

❑ History

Texel sheep have existed since Roman times and originate from the island of Texel which is off the north west coast of Holland. An infusion of British sheep blood at the beginning of the century improved its potential. Today Texel sheep are found throughout Europe with the first importations into the UK from France and Holland taking place in the early seventies. Texels are now also found in America, Australia and New Zealand.

❑ Main Purpose of the Breed

The Texel was imported to improve conformation and carcass quality of the native breeds, particularly leanness and area of quarter and gigot.

Their higher proportion of expensive cuts and exceptional lean to fat and meat to bone ratio are second to none, a point clearly exhibited by the fact that 95% of all carcass competitions in the UK are won by Texels or their crosses, whilst in the market place they command a substantial

premium. Hence the slogan 'Profits higher from a Texel Sire'.

It is now generally accepted that the Texel cross ewe has also a great deal to offer, being prolific, very milky, an excellent mother and also very hardy due principally to her tight coat which when shorn can weigh up to 10lbs.

She is essentially a low cost ewe being able to retain body condition without the need for heavy supplementary feeding.

Texel lambs at birth are vigorous, quickly on their feet, strong feeders and will withstand severe weather better.

They grow and flesh well on grass alone and have the added bonus of providing an ideal carcase over a wide range of weights. When over-wintered for the more lucrative Easter market they still retain this inherent leanness.

The first Texels in the UK were mainly to be found amongst the countries lowland flocks, but today they are breeding successfully and gaining prominence on some of the harshest hills in the less favoured areas.

□ General Information

Average Prolificacy:

Ewe lambs	130%
Shearling ewes	160%
Mature ewes	180%

Average Birthweight of lambs:

Singles	6-7kg
Twins	4-5kg

Carcase weight of lambs at slaughter: 18-21kg

Killing-out percentage: 60%

Average Adult bodyweight:

Mature ewe	85kg
Mature ram	120kg

□ Outstanding Qualities

The Texel's main outstanding qualities are its muscling and docility.

Like the Limousin in the cattle world, the Texel in the sheep industry has provided the type of carcase the British and European meat trade asked for to meet the consumers demands for tender, leaner, tastier lamb.

□ Breed Developments

The British Texel Sheep Society is now the largest sheep breed society in the UK. The Society has an active research and development flock based at the Welsh Institute of Rural Studies and is a major partner in a progressive sire reference scheme. The Society also owns an export marketing company, Texel Genetics UK and is at the forefront of commercial lamb marketing through its subsidiary company, Certified Texel (Producers) Ltd.



Vendéen

❑ Description

The head and legs are pale to dark brown and are lightly fleeced. The body is long with a broad back, well sprung ribs, strong loin and well developed gigot. The breed has a noble head and broad muzzle. It is hornless and the poll not too wide, the ears are large. The bone is medium.

It has an excellent quality close fleece which sheds water easily. It is a fine down type and uniform fibre length, staple length is 5-7cm and the average fleece weight is 3.5kg.

❑ History

The Vendéen breed has been known in the Vendée region of France for many hundreds of years and is said to owe some of its blood to sheep saved from the wrecks of Spanish galleons at the time of the Armada. More definite links were established with the importation of Southdown sheep to the Vendée a little over a century ago. Recently sheep have been selected to provide lean meat as demanded by the French market. Further selection has been made in recent years for hardiness and prolificacy.

The first importation into Britain was in 1981 (at about which time the British Vendéen Sheep Society was formed) when the first ewe lambs to be imported all produced twins.

❑ Main Purpose of the Breed

The main purpose of the Vendéen is for the production of high quality lean meat of an excellent

flavour from both pure and cross bred sheep.

Tups are used on a wide variety of breeds (including pedigree Vendéens) to produce a carcass of good conformation (E, U, or R) with a fat class of 3L or better in most cases at weights of normally between 16 to 20kg but even up to 25kg the carcass will not be over fat. Lambs are normally ready for market by 10 to 15 weeks of age with little additional feeding.

General Information

Normal body weights for adult males is 95 to 120kg and for females 65 to 80kg. Fertility for adult ewes is normally in excess of 200% and for ewe lambs 180%, breeding from ewe lambs does not lead to a reduction in subsequent lambing rates in most cases. Ewes and many of their crosses, breed naturally out of season without sponging, tups are eager workers.

The breed is easily managed and is suitable for most management systems. The sheep will adapt to extensive systems on poor land, there are several flocks kept at 1,000 feet, or they can be more intensively managed on good lowland pasture, they are also suitable for indoor rearing. Under some systems it is possible to have three crops of lambs in two years. The ewes and rams are normally docile adding to the ease of management.

Ewes usually lamb easily on their own, lambing problems are uncommon, and the new born lamb is eager to live, they 'get up and grow'. The normal birth weight of lambs is 4 to 6kg.

Breed Development

The Society is involved in a Sire Reference Scheme (BVSRS) which is operated in conjunction with Signet. About 75% of the National Pedigree flock is engaged in the Scheme.

Recent BVSRS Results

<i>Year</i>	<i>Eight Wk Wt</i>	<i>Scan Wt</i>	<i>Muscle</i>	<i>Fat</i>	<i>Scheme Index</i>
90	0.251	0.226	0.099	0.026	100.0
91	0.174	0.067	0.005	-0.032	98.4
92	0.264	0.187	-0.107	-0.028	94.5
93	0.191	0.352	0.117	-0.043	110.3
94	0.074	0.319	0.052	-0.032	105.4
95	0.102	0.241	0.241	-0.076	117.9
96	0.271	0.631	0.631	-0.058	130.5
97	0.549	1.197	1.197	-0.057	155.4

(Photo supplied by kind permission of D Low)

Welsh Hill Speckled Face



Welsh Hill Speckled Face

❑ Description

A very attractive breed with black markings on nose, eyes, ears, knees and feet on an otherwise white body. Ewes are polled but both horned and polled rams are acceptable.

❑ History

The breed originated in the hills of Mid-Wales and is believed to have been derived from the crossing of Kerry Hill sheep and Welsh Mountain sheep. The breed became uniform with the establishment of the Breed Society in 1969. Land improvement in upland Wales over the last 30 years has seen a dramatic increase in the number of Speckled Face sheep replacing the more traditional mountain breeds. This is particularly evident in North Wales where a new branch of the Society was formed in 1988.

❑ Main Purpose of the breed

The natural habitat of the breed is the uplands of Mid and North Wales. The winters in these areas are tough, often with severe falls of snow and rainfall of up to 80 inches. Nevertheless, the breed thrives in these areas despite the fact that only the minimum of supplementary hand feeding is normally given either in winter or at lambing time.

On these upland farms the ewes will be purebred, lambing outside from mid-March to mid-April. Whilst the wether lamb gives a sweet hill carcase, ewe lambs will be retained for flock

replacements, normally sent away to overwinter on lowland farms for the first winter. Ewe lambs will be bred from in their first year.

Traditionally the three or four year old ewes will be sold as draft ewes each Autumn. Being a hill breed they are excellent mothers with ample milk to rear their lambs well and under the kinder conditions of the lowlands they will continue to rear lambs for another three years or more when crossed with a Down ram. They also have the ability to produce early crossbred Butchers' lambs that can be sold off from 12 weeks onwards. Alternatively the ewes are crossed with a Bluefaced Leicester ram to produce the Welsh Mule which is now in great demand.

☐ General Information

Average Prolificacy:

On hill land	125%
Lowland	180%

Average Carcase Weight of Lambs at slaughter:

Pure bred wether	14-17kg
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Crossbred:

Suffolk X	16-20kg
Texel X	16-20kg
Charollais X	17-22kg
Bluefaced Leicester X	17-22kg

Average Adult Bodyweight:

Mature ewe	50-55kg
Mature ram	60-70kg

<i>Fleece Weight:</i>	2-3kg
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☐ Outstanding Qualities

The breed adapts easily to both upland and lowland conditions and systems. The fleece is both fine and tight making the ewe harder than other hill breeds.

☐ Official Sales

Since the establishment of the Welsh Hill Speckled Face Sheep Society in 1969 the breed has become more uniform in type and is readily available at Autumn Sales in Mid and North Wales at Cefn Coch, Llanfair Caereinion, Llanidloes, Welshpool, Devils Bridge and Llanrwst. The Society holds Annual Ram Sales at Llanidloes, Devils Bridge and Llanrwst where breeders purchase their purebred rams.

For details of these sales or any further information please contact the Breed Secretary.



Welsh Mountain

❑ Description

The Welsh Mountain ewe, with its white or tan face, has an average mature weight of 35-40kg on the hill or mountain but can add a further 10kg when drafted onto lowland. It has a strong, close textured fleece and a typical ewe clip weighs up to 2kg. The ram is usually, but not always, horned.

❑ History

The Society was formed in 1905, but two sections developed with one concentrating on pedigree sheep, the other representing hill flock producers with extensive flocks, a development formalised in 1958 when the society's constitution was amended to take account of the difference. The hill flock section has its 450 members organised into five county groups covering the old counties of Caernarfon, Denbigh, Merioneth, Montgomery and Cardigan and its objective is the improved production of the breed in order to meet current marketing requirements.

❑ Main Purpose of the Breed

The Welsh Mountain breed has survived for centuries in the harsh environment of its natural habitat, where high rainfall and freezing winter temperatures make it impossible for anything other than the hardiest and fittest to exist. The breed was developed to survive in such a harsh environment and producers gave the highest priority to factors such as hardiness, milkiness, mothering ability and lamb survival when deciding upon breeding characteristics. Furthermore,

Welsh lamb's pre-eminence for quality and taste was built upon lamb from the Welsh Mountain breed.

As could be expected, lamb survival rates are extremely good and independent trials in Scotland in the past have shown that pure-bred Welsh Mountain lambs were 6% better than average while crosses from Welsh ewes were 4% better.

☐ **General Information**

The lambing percentage will vary according to environment and management regime and is normally expected to be 95% on the poorest mountain land and up to 130% on improved land. Under good lowland conditions however this can be increased even further to almost 160%. MLC Flockplan results have shown that Welsh Mountain ewes can out-perform other breeds or crosses in output of meat per hectare and especially in terms of capital invested.

The average carcase weight at slaughter is also dependent upon circumstances with the mountain and uplands producing the lighter lambs. These can weigh up to 15kg, but when crossed with a terminal meat sire, carcasses of 14-18kg can be comfortably attained.

☐ **Outstanding Qualities**

The relatively low bodyweight and thriftiness enables the ewe to be stocked intensively without the need for expensive supplementary feeding and its milkiness enables producers to get the lambs to market quickly.

The inherent characteristics of the Welsh Mountain sheep are transmitted to its crosses. This has been recognised for some time and the breed has formed a cornerstone in the production of Wales' primary breeding ewes, notably the Welsh Half-bred and Welsh Mules.

A versatile and well established breed, the Welsh Mountain has proved that it can produce lambs in an efficient and cost-effective way under widely differing management conditions, giving farmers a good return for their time and investment.

Welsh Mountain – Pedigree Section



Welsh Mountain

❑ Description

Rams: White or slightly tanned faces with masculine wedge-shaped heads; horns, fairly strong, well curved.

Ewes: polled. Wool: white, firm, medium length.

Bodies: compact, strong, medium size. Welsh sheep are attractive in appearance and lively in action.

❑ History

Welsh Mountain sheep is the native breed of the Welsh uplands. The Welsh Mountain Sheep Breeders' Association and Flock Book Society (as it was then known) was established in 1905. In 1958 the Welsh Mountain Sheep Society modified its constitution and we have now the Pedigree Section and the Hill Flock Section within one Society.

❑ The Main Purpose of the Breed

By careful selection, pedigree breeders have evolved a sheep that gives a combination of early maturity, superior fleshing in the choice cuts, a valuable coat of wool, the ewes are very active, healthy, long living, excellent mothers able to convert low quality herbage into attractive highly nutritious food.

Welsh pedigree rams are in demand for mating with hill, lowland and cross ewes. The ram can improve the conformation, weight, early maturity and wool of its progeny. Pedigree Welsh rams are in great demand for mating with the Welsh Halfbred ewe lambs during the first season, thus ensuring that a high percentage of the yearling halfbreds will have reared lambs in their first season. The lambs are lively and thrive well without making heavy demands on the dam, thus not impairing her own growth. Pedigree sheep have been high in the carcass classes for hill and mountain breeds, having gained the Supreme at the Royal Smithfield and at the Royal Welsh Winter Fair.

A pedigree Welsh Mountain flock has been established in Ireland. The wool is a valuable commodity and commands a ready market, suitable for a variety of uses, possessing special characteristics of fineness and softness in the manufacture of quality tweeds. Fleeces from the breed have won the Champion prize in the Mountain class at Royal England Show and Supreme Championship against all breeds at the Royal Welsh Show.

❑ General Information

Average Prolificacy:

Shearling ewes	115-125%
Mature ewes	135-150%

Carcass weight of lambs at slaughter:

On hill land	12.5-16kg
On lowland	16-19kg

Average Adult Bodyweight:

Mature ewe	45-48kg
Mature ram	75-80kg

❑ Outstanding Qualities

The Welsh ewe gives an excellent return on capital, quick to lamb, excellent mothers with plenty of milk. Rams are very active and reliable breeders. Both the pure and crossbred lamb is renowned for its high quality, tenderness, leanness and its unsurpassed flavour.

❑ Show and Sale

The Annual Show and Sale is held on the third Tuesday in September at Plas Gogerddan, Aberystwyth. An Annual Flock Competition is held.

❑ Flock Book

Every pedigree flock has a prefix, with ram lambs, ewe lambs registered in the Flock Book carry flock designated letters together with an initial letter denoting the year of birth. One is able to trace the breeding, since the sire and dam of each entry is recorded in the Flock Book, as well as the sire of the dam.



Wensleydale

□ Description

The Wensleydale is a very large longwool sheep, described by the MLC as 'probably the heaviest of all our indigenous breeds'. It is a visually striking sheep with considerable presence. It has bold and alert carriage which is accentuated by its broad, level back on wide quarters and strong thighs. It has a distinctive deep blue head and ears, which should be clean except for a well developed forelock of wool, usually referred to as the 'topping'. Both sexes are polled.

□ History

The breed, which originated in North Yorkshire early in the 19th Century, is the direct descendant of a long since extinct local longwool breed which was probably introduced into Wensleydale in the late 18th Century, being used mainly for crossing onto hill ewes.

An outstanding ram named 'Bluecap' was the foundation sire and the breed is probably unique in that its Association is able to not only identify a foundation sire, but also trace that ram's parentage, year and place of birth and breeder. 'Bluecap' was born in 1839 in the hamlet of East Appleton, five miles NNW of Bedale in North Yorkshire. He was sired by an outstanding Leicester ram out of a ewe of the now extinct local longwool breed. His unique qualities, which determined the breed type without any further infusion of Leicester blood, were his dark skin, superb quality of wool and size — 203kg (448lb) as a two shear.

The Association celebrated its centenary in 1990.

■ Main Purpose of the Breed

The Wensleydale breed was developed to provide rams for crossing onto hill ewes, mainly Swaledale, Blackface, Rough Fell, Cheviot and Dalesbred and latterly Beulah, to produce a prolific, milky and hardy breeding ewe (the original Masham) and also a wether which can produce under natural conditions on marginal ground a quality carcass at higher weight with no excess fat. The Wensleydale ram gives that extra size and quality to its cross bred progeny, enabling any recognised terminal sire to fulfil its potential.

A Wensleydale ewe will produce two lambs with minimal lambing problems. Twin lambs average 6kg each at birth with a growth rate that enables ram lambs to reach 73kg at 21 weeks and be used with confidence on hill breed ewes in the Autumn.

The Wensleydale is also recognised for its longevity and a fine grained, very lean meat which does not turn to fat as a hogget.

Though developed as a *Crossing Sire* the Wensleydale is equally well known for the exceptionally high quality of its *wool*, making it an outstanding *dual-purpose sheep*. Wensleydale wool is the finest and most valuable lustre longwool in the world. Fleeces are of 20-30cms staple length and 33-35 microns thickness, with yearling fleeces weighing from 6-9kg. Fleeces are entirely kemp free as a result of the unique characteristics of the wool-producing follicles. This special quality is genetically transmitted to cross-bred lambs, characterising the Wensleydale ram as perhaps the leading wool improver sire. Wensleydale wool is used for its special effects and handle in hand knitting yarn, knitwear and cloth and sometimes in upholstery fabrics. Because of its similarity it is also used to blend with mohair.

■ General Information

Average Prolificacy: Shearling ewes 200% Mature ewes 250%

<i>Lamb Bodyweights at eight weeks:</i>	<i>Male</i>	<i>Female</i>
Single	25.8kg	25.8kg
Twin	22.0kg	21.4kg

Average Adult bodyweight:

Mature ewe	113kg
Mature ram	136kg

(Source: MLC Recorded Data)

Though predominately a white wool breed, the Wensleydale Association incorporates a black section within its flock book, but does not permit breeding between sheep of the two sections.

■ Breed Developments

Scrapie Resistance. The Wensleydale has the highest genetic resistance to scrapie of all recognised sheep breeds in the United Kingdom, with PrP tests revealing a 92% codon 171 R/R genotype in the breed. The commercial significance of this is that the buyer of a Wensleydale ram has a 92% chance that the ram will be of this genotype and that in using it as a crossing sire none of the crossbred progeny will be of the genotype susceptible to scrapie.

MLC Ram Breed Comparison Trials. The last MLC Ram Breed Comparison trials revealed that the Wensleydale Ram, though not a recognised terminal sire, nevertheless produces the heaviest class 3L lamb out of Scotch Half-bred, Mule and Greyface ewes.

White Face Dartmoor



White Face Dartmoor

❑ Description

It has a white head and face, the face of the ewe being free of wool, the ears are short and thick with occasional black spots on them. They were always horned but this feature has tended to disappear over the years, particularly amongst the ewes. The body is deep, broad and of medium length. The wool is white, of good staple and with a fairly strong crimp.

❑ History

There have been White Face Dartmoors on the Moor since the very earliest records, they were also found on parts of Exmoor.

❑ Main Purpose of the Breed

The ewes are renowned for crossing to produce a halfbred ewe capable of producing a quality prime lamb when put to a terminal sire ram. The White Face Dartmoor ewes excellent mothering instincts and abundance of milk are transmitted to her offspring.

The pure bred or cross bred lamb is of excellent quality, being lean enough to meet with present day continental requirements.

❑ General Information

Average Prolificacy: 130%

(Source: MLC Recorded Data)

<i>Lamb Bodyweights at eight weeks:</i>	<i>Male</i>	<i>Female</i>
Single	21.3kg	19.2kg
Twins	15.9kg	14.7kg

(Source: MLC Recorded Data)

Adult Bodyweight:

Mature ewe 54kg

Mature ram 75kg

Wool Clip:

Average weight:

Ewes 5.5-7.3kg

Hoggs 4.5-7.3kg

Maximum recorded weight 9.5kg

Bradford Count 36-40 (Source: BWMB Data)

Average staple length 15-20cm

❑ Outstanding Qualities

The White Face Dartmoor is very hardy and can thrive on the very poorest pasture. Most of the grazing is at an altitude varying from 500ft to 2,000ft above sea level, and the majority of flocks are kept out on the Moor from May to December. They are docile and easily managed.



The White Face Dartmoor Sheep Breeders Association

White Faced Woodland



White Faced Woodland

❑ Description

This large-framed hill breed has a broad face which should be white with a pink nose. The legs are white and free from wool. The fleece is white and of a very fine quality. They are horned in both sexes, the males having heavy spiralling horns. The sheep are strong boned and long in the body. Their tails have a distinct muscular appearance, and it is traditional to leave the Male's tail long, but to dock the ewes somewhere between the legal length and the hock.

❑ History

The White Faced Woodland originated in the Pennine Hills. In the 17th Century their usual name was Penistone after the Yorkshire market town, where a sheep market has been held since 1699 and from which they were sold. More recently the breed has been known as the White Faced Woodland, derived from the valley called Woodland, which links Derwent and Ladybower to the Snake Pass and Glossop. The breed is likely to be related to the Swaledale and the Lonk, and is thought to have obtained its remarkably fine wool from an importation of Merino blood by King George III in the 18th Century. Their decline in popularity began during the First World War and continued until they were confined to a handful of farms in the Pennines. However, with the formation of the Rare Breeds Survival Trust in 1973 attention was focused on the White Faced Woodland sheep and its tremendous potential duly recognised. The last few years has seen great progress not only in its preservation but also in its distribution and commercial development.

❑ Main Purpose of the Breed

On the hill, the breed is often kept pure, to produce breed replacements, store lambs or prime carcasses. Rams are frequently used as crossing rams on ewes of other hill breeds in order to improve size and wool quality, and to impart hybrid vigour.

Draft ewes are sold to lowland farms where their performance is greatly enhanced by the kinder conditions and they regularly rear twin lambs well. The ewes can also be put to a terminal sire to produce first class lambs which finish quickly and cheaply and can be sold direct of the ewe at 18-20kg (40-44lb) carcass weight.

❑ General Information

Average Prolificacy:

On the hill	130-150%
On the lowland	150-200%

Lamb carcass weight at slaughter: 18-22kg (40-48lb)

Average Adult Bodyweight:

Mature Ewes	63kg (140lb)
Mature Rams	130kg (286lb)

Fleece Characteristics:

Staple length	15-20cm
Fleece weight	2-3kg
Bradford Count	44-52

❑ Outstanding Qualities

The White Faced Woodland is a long lived, hardy thrifty sheep, which adapts well to all conditions and systems of management being equally at home in the harsh Pennine environment or on rich lowland pasture. Very milky ewes with good mothering instincts, producing strong and lively lambs, means a high lambing percentage can easily be achieved. The large well proportioned frame produces a lean carcass ideal for every outlet from the local butcher to the high street supermarket, readily meeting all the demands of today's health conscious consumer. The wool is of a very fine quality and much sought after not only for its natural colour, but also for its ability to take any colour dye. It is a hard wearing robust sheep and its high performance potential combined with its low depreciation make it a very profitable breed.

Wiltshire Horn



Wiltshire Horn — Breed without wool

❑ Description

An old established lowland breed that is large and white faced. Both sexes are horned and woolless.

❑ History

Descended from the same ancestors as the other white faced short wool breeds found in the south of England, it was particularly suited to open downland and was the predominant breed on the Wiltshire Downs. The breed society was formed in 1923. In the 1950's it lost some of its popularity due to an increase in wool prices but in recent years interest and numbers have increased and the membership is now 135.

❑ Main Purpose of the Breed

Originally the Wiltshire was primarily used as a terminal sire, particularly on ewe lambs but it is now dual purpose by using sires of other breeds on the ewes to obtain the full benefit of a woolless breed, with the consequent reduced shepherding costs. This is particularly useful on arable farms and where sheep are not the main enterprise. There is also a steady demand for export particularly to the warmer climates where its lack of wool makes it ideal for crossing with the native breeds.

❑ General Information

Average Prolificacy:

Ewe lambs	130-150%
Mature ewes	170-190%

Average Birthweight of Lambs:

Singles	4.5-5.0kg
Twins	4.0-4.5kg

Carcase Weight at Slaughter: 18-23kg

Average Adult Body Weight:

Ewes	72kg
Rams	126kg

❑ Outstanding Qualities

Absence of wool — no shearing costs. Fly or tick troubles are virtually unknown. No dagging or crutching and the sheep are not liable to cast, all of which saves a close daily inspection of the flock.

Good converters of grass — a Wiltshire crossed with any breed will produce prime lamb off grass with little or no concentrates and at a good growth rate. The breed has strong foraging ability which together with its long legs makes it particularly well suited to roam over wide areas and to do well on rather poor pastures with little shade.

Vitality at birth — it is a great advantage at lambing that the lambs are fine in neck and head. They have extraordinary vitality at birth and they are born with a kind of hair covering which amply protects them from the cold. They are quickly satisfied by their mother's milk and very little attention is needed during lambing time.

Strong sires — as a sire, the ram has proved particularly pre-potent.

Excellent mothers — the ewes are kindly and protective mothers and do their lambs well.

These combine the ease of management and the ability to meet the stringent requirements of the modern sheep industry.

❑ Breed Development

The Society and individuals are actively participating in health schemes and other trials and these combined with the advantages of ease of management, mean that the breed has the ability to meet the requirements of the modern sheep industry.

❑ Official Sales

Gaerwen (Anglesey) and Northampton — both in September.



Zwartbles

Description

The Zwartbles name means Black with a White Blaze. She is a tall, longbodied sheep which always carries her head up high, with alert ears. Ideally she should have an all black body and black head with a white blaze from the top of the head to the nose, two white socks on the rear legs and a white tip to her tail which is never docked. Two white socks on the front legs are also very desirable. Both rams and ewes are naturally polled. The fleece is of remarkable quality and texture shading from black to brown along an ideal staple and is very much sought after by spinners and weavers. Each fleece averages some 4kg in weight.

Her body conformation of narrow shoulders with body widening to the rump, combined with a narrow head make for very easy lambing and it is most unusual for any assistance to be required at lambing time. Zwartbles ewes are very maternal and as the lambs are quickly on their feet after birth, mothering is not a problem. She is also extremely milky with twins and triplets being suckled with ease. The lambs grow at a tremendous rate and with good management, growth rates of over 500 grammes per day can be easily achieved.

As a result of the excellent growth rate, gimmer lambs will readily take the ram in October and rear twins.

History

Early this century, a number of dairy farmers in the Dutch province of Friesland started keeping

Zwartbles sheep, a breed which most likely had been developed from the native Schoonebeeker sheep which were noted for their thriftiness grazing on heathland in the province of Drenthe.

On the lush extensive Friesland pastures, the Zwartbles was developed to follow behind the dairy herd, receiving little or no attention from the farmer as the ease of lambing and the exceptional maternal qualities of the ewe together with her hardiness fitted in well with their farming practice.

As dairy farming became more profitable and much more intensive with greater number of cows kept on the holding, the use of the Zwartbles declined to such a low number that in the mid-seventies the breed was adopted by the Dutch Rare Breed Survival Trust in order to protect it from extinction. This action was successful and the Zwartbles survived.

During the 1980s, milk production became less profitable and the demand for the Zwartbles with its special qualities returned until, in 1985, a group of 130 breeders and farmers formed the Netherlands Zwartbles Schapenstamboek. There are now some 200 members of the NZS farming some 3,000 ewes and Zwartbles are now exported to many countries in Europe, with the largest numbers going to Italy and Poland where they are kept for milk production for cheese manufacture.

❑ Main Purpose of the Breed

The majority of Zwartbles in the UK currently are either imported or bred from imported Dutch pedigree stock. All imported stock are confirmed scrapie free and maedi visna accredited by the Dutch Ministry of Agriculture before the Dutch breeders are allowed to export them, so these sheep will fit in easily with the current schemes on offer in the UK.

Primarily, most of the flocks of Zwartbles in the UK are for the production of pedigree breeding stock. However, and perhaps more importantly, the ZSA feel that Zwartbles have an excellent commercial future in this country in the production of a prolific, maternal and milky female producing lambs with really lean carcasses when crossed with a terminal sire.

❑ General Information

From information provided by the NZS, since 1990 over 15,000 lambings were recorded with an average of 2.06 lambs per ewe. The average birth liveweight of the lambs was 4.5kg. The average liveweight of the Zwartbles ewe is 85kg whilst the rams are proportionally heavier with an average of 100kg.

The breed wears well, producing up to six crops of lambs and the rams working on in their 8th and 9th years.

The Zwartbles Sheep Association has the objectives of assisting its members with the improvement of the Zwartbles by:

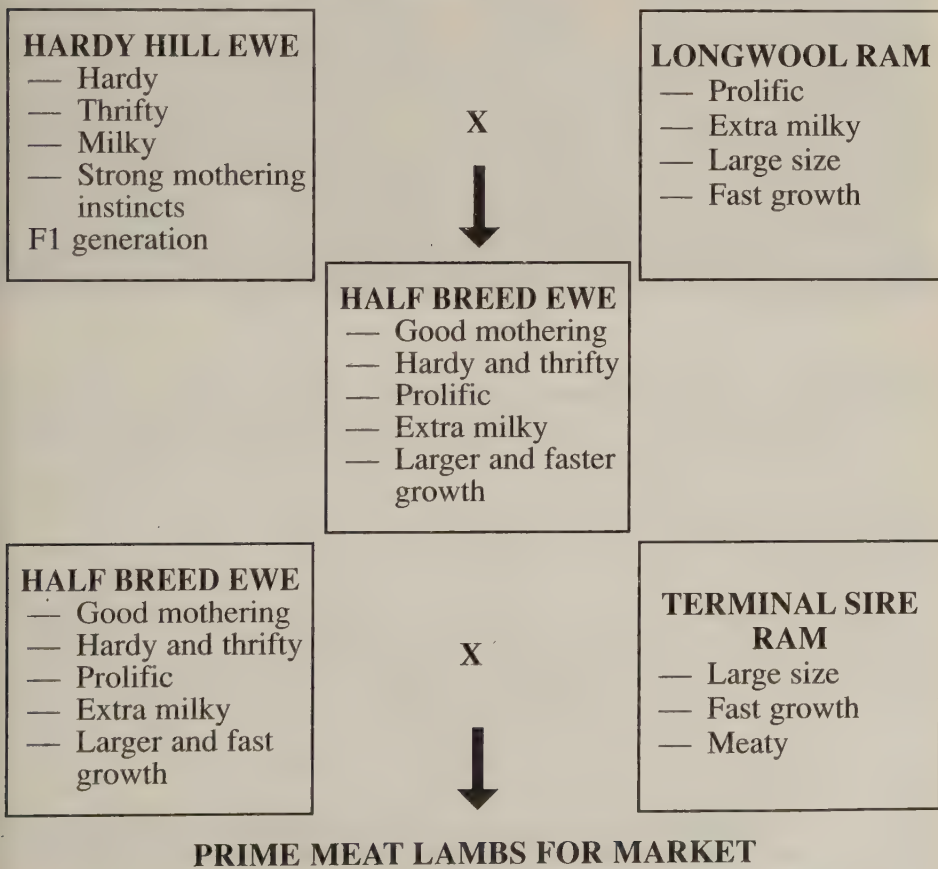
Defining the breeding goal; managing the database with information on pedigree, prolificacy and markings of all registered Zwartbles sheep; organising an annual Zwartbles show and sale; developing contact between breeders; publishing a breeders directory.

Finally, the gentle and docile nature of the Zwartbles makes them a real pleasure to keep, they prefer to be led rather than driven and they are naturally tame.

HALF BREED SECTION

Stratification of the UK Sheep Industry

A system unique to Britain has evolved over hundreds of years, whereby sheep production in the hills is linked right down to these farms in the lowlands. It maximises the inherent characteristics found in the different breed types which survive in the varying terrain and climates found around the UK. Sheep of one breed are crossed with another to produce offspring which combine some of the more desirable characteristics of both parents. For instance, the hardy hill ewe is capable of surviving on some of the remotest harshest grazing areas around the UK. The Longwool ram on the other hand originates in the moderately better climatic regions of the uplands and exhibits qualities such as prolificacy and extra milk. When the two types are crossed together a half breed type is produced which combines these characteristics in a process called hybridisation. The males of this half breed are all 'finished' as slaughter lambs whilst the best females are retained as breeding ewes. Many are sold to producers on lower more fertile farms where they are then crossed again with the larger terminal sire breeds, named as a result of their role as the last crossing breed. They have the characteristics for fast meat growth, and larger size, which when combined with the favourable mothering qualities of the half breed ewes produces a heavy crop of fast growing lean lambs with prime meat carcasses when slaughtered. The diagram below illustrates this crossing pattern.



Lomond Halfbred



Lomond Halfbred

┘ Description

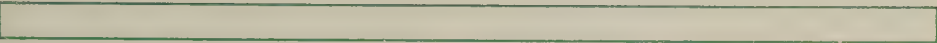
The Lomond Halfbred is a cross-bred ewe, resulting from crossing selected white Shetland ewes with the Lomond Merino ram. The resultant cross is a small to medium sized sheep, naturally polled, with short, pricked ears and an alert expression — not dissimilar from her dam. However, unlike her mother who cuts about 1.5kg of wool, the Lomond will cut up to 4kg of wool averaging 24 microns. The lambs are shorn twice — as lambs and then hogs — before having their first lambs. As lambs they will cut up to 2kg of wool at 21 microns.

┘ History

The Lomond Halfbred has evolved over eight years research and development work by the Scottish Fine Wool Project — now called Scottish Fine Wool Producers Ltd — to produce an alternative halfbred ewe which, while still producing quality terminal lambs with sufficient prolificacy will also have quality fine wool on its back to provide substantial added value.

The Project, with the assistance of the Macaulay Land Use Research Institute in Aberdeen — both from the Institute's fibre laboratory and its sheep breeding experts conducted substantial breeding trials using a range of Merino rams, both of Australasian and European origin over selected Shetland ewes to produce the cross ewe.

Given that Australasian Merinos have quality wool but poor conformation and prolificacy and European Merinos enjoy better conformation and prolificacy but have stronger, less stylish wool.



Interbreeding of Merinos was conducted, using the French Est à Laine ewe crossed with the Australian Saxon Superfine. From this crossing has evolved the Lomond Merino. Stabilisation of the Lomond Merino is now taking place in a line breeding programme involving five sub-flocks at Oatridge Agricultural College near Edinburgh.

■ Main Purpose of the Breed

To provide substantial added value from the fleece of the mother of prime lamb.

■ General Information

The Lomond Halfbred is now found on some 50 Scottish farms throughout Scotland, both on the mainland and on the Northern Isles. A central elite flock of Lomond Merinos, based at Oatridge Agricultural College, West Lothian provides the sires for the outlying farmers for crossing over Shetland ewes. Flocks on the Northern isles — Orkney and Shetland — are used primarily for producing Lomond Halfbred ewe lambs for flocks on the mainland.

The British Wool Marketing Board operates a special grading scheme in conjunction with Scottish Fine Wool Producers and Macaulay Land Use Research Institute’s fibre laboratory for quality control.

Scottish Fine Wool Producers have their own garment label/swingticket which is supplied to the retailer through the garment manufacturer and for which the group is paid a royalty on every garment.

■ Breed Development

A breed stabilisation programme for the Lomond Merino is currently underway at Oatridge Agricultural College with five sub flocks. As part of a general scrapie eradication programme, all Lomond rams on the Northern Isles — where the bulk of breeding stock is produced for sale on the mainland — have been tested in the scrapie genotyping scheme. Eventually the entire elite flock will have been blood-tested.

All Lomond ram lambs are fibre tested, with a cut-off point of 20 microns.

Feed Lot Trial with J Bibby Agriculture. The purpose of this feed trial was to compare two pens of Lomond x Texel terminal lambs with two pens of more conventional English Mule x Vendéen terminal lambs. Two groups (one of each) were fed on a 16% store lamb pellet and two (one of each) on an 18% finishing lamb pellet. The trial was over 42 days.

Results

<i>Breed</i>	<i>Protein Level</i>	<i>Start wt in kgs</i>	<i>Final Wt in kgs</i>	<i>Daily Liveweight Gain in gms*</i>
Lomond x Texel	16	32.2	41.3	302
Lomond x Texel	18	32.2	43.5	347
Eng Mule x Vendéen	16	31.6	40.7	245
Eng Mule x Vendéen	18	32.0	38.4	281

*Daily liveweight gain of animals sent for slaughter before the trial end is taken into account.



Masham

❑ Description

The Masham ewe is medium sized and hornless. She has a good reputation for the ability to perform well in a wide variety of circumstances. Producing quality lambs is what she is bred for with an added bonus of a long stapled fleece, particularly as a hogg.

❑ History

Mashams have been bred for over a century on the hills of Northern England. They are the progeny of a Teeswater ram out of either a Dalesbred or a Swaledale ewe both of which are well known for their hardiness and thriftiness. From these parents it gains: Longevity, hardiness, milking ability, high prolificacy and strong mothering instincts.

The breed association was formed in 1986 by a group of breeders who were dedicated to producing Mashams to be proud of, for sale to buyers from both local counties and much further afield. All of these lambs are backed up by a tagging system which because of its information allows the purchaser to trace the breeder, via the secretary, for whatever reason. It helps in exchange of performance and grading results which are so vital in today's market.

❑ Main Purpose of the Breed

The Masham is often referred to as a dual purpose sheep. Ewe lambs and shearlings are much sought after at the Associations Northern sales by buyers from Southern England, Scotland,

Wales, The Midlands and of course locally.

When crossed with one of the Down breeds, particularly Suffolk, and in recent years also continental rams, an ideal commercial lamb is produced. In some instances Teeswater rams are used to produce a heavyweight carcase.

Ewe lambs are suitable for breeding in their first year and are often clipped in the Autumn, giving a small cash return, but more importantly improving lamb birthweight and giving easier observation up to and at lambing.

❑ General Information

Prolificacy:

Ewe lambs	125%
Shearlings	190%
Mature ewes	200%+

Average Birthweight of Lambs:

Singles	6kg
Twins	4.5kg

Average Adult Bodyweight: 75kg

Carcase:

Weight	16-25kg
Lean Meat	76.3%
Bone	20.9%
Fat	2.7%

❑ Outstanding Qualities

Because of the wearing ability of the ewe, depreciation costs are reduced, in many flocks ewes are lasting one or two years extra. The wool with a high yield of good lustre, is clipping 3-4.5kg

Ewes in a wide range of management systems and with a minimum of supplementary feed are giving 200% plus lambing.

In the hill flocks where the Masham is produced, the wether lambs are yielding low fat, quality carcasses. They are very economical feeders and give a rapid weight gain even in the more marginal land. Masham wethers also find a ready market in the autumn store ring.

North of England Mule



North of England Mule

❑ Description

Hornless with brown/white face, clear of wool with a tendency towards a 'Roman nose'. Ears and legs white with brown markings. Long demi lustre fleece with slight crimp.

❑ History

This medium sized cross-bred sheep, sired by the Bluefaced Leicester, has a Swaledale or Northumberland type Blackface dam. The latter two breeds born and reared on the Northern fells and moors are noted for qualities of hardiness, thriftiness and longevity. The hybrid vigour produced by crossing the contrasting pure breeds — the prolific, milky, lean fleshed and early maturing Bluefaced Leicester with the hardy hill ewe results in the Mule retaining the best qualities of both.

└ Main Purpose of the Breed

The Mule ewe has the ability to produce and rear prolific crops of lambs under any system including inwintering. Lambs from the Mule by a Down or Continental type breed of sire give a first class carcase, at 17-22kg ideally suited to both home and continental markets. The superb mothering ability of the Mule offers an ease of shepherding remarkable in the production of prime lambs, a feature which has witnessed its rapid spread throughout the country. It is common practice to breed from the ewe lamb within its first year whilst the adult ewe is capable of

rearing an early lamb crop. The fleece of the Mule (2.5-3.5kg) has a staple length of 10-25cm and a Bradford Count of 46's-54's. It is used mainly on the manufacture of knitwear and carpets.

General Information

Average Prolificacy:

Ewe lambs	125%
Shearling ewes	190%
Mature ewes	195%

Average Birthweight of lambs:

Singles	6.5-7kg
Twins	4.5-5kg

Carcase weight of lambs at slaughter:

Carcase weight	17-20kg
Lean meat	57%
Bone	22%
Fat	21%

Source: MLC

Average Adult Bodyweight:

Mature ewe	80kg
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Outstanding Qualities

The Mule wether lamb has outstanding commercial advantages. Ranging over high land under a great variety of environments produces a quality lamb carcass at acceptable weights which can be readily marketed over a long period (July-March). Noted for being an excellent finisher on grass, it has a very good live weight gain and carcass realisation price.



Scotch Halfbred



Scotch Halfbred

❑ Description

The Scotch Halfbred, also known as the 'Queen of Sheep', is the supreme producer of top quality prime lambs suitable for all today's markets. Being one of the larger cross-bred ewes in this country, she is long bodied with a clean white face and larger erect ears.

❑ History

The Scotch Halfbred originated in the mid-18th Century and is the progeny of the Border Leicester sire and the North Country Cheviot dam. They were bred mainly in Scotland, down the east coast to Northumberland and along the Borders west to the Solway Firth.

❑ The Main Purpose of the Breed

The principal attributes of the Scotch Halfbred are her capabilities of producing prime lambs. When crossed with almost any terminal sire, the most common being the Suffolk, prime lambs are able to reach optimum weights without becoming too fat. Many Scotch Halfbred as a mother. When it is crossed again with the Suffolk, Texel or any of the many terminal sires, she produces a high quality of excellent conformation suitable for today's varied marketing options.

❑ General Information

The Scotch Halfbred and Suffolk X Halfbred wedder lamb are also popular with Butchers,

fulfilling the need to be 45+kg, but meeting the housewives demand to be a lean meat.

The Scotch Halfbred is a very prolific breed, with many flocks reaching 200% without difficulty, she also produces a good fleece of white wool, clipping an average of 3-4kg per year.

☐ **Official Sales**

Principal Sale centres for the Scotch Halfbred are Newtown St Boswells, Lockerbie, Carlisle and Annan in the South of Scotland, with Thurso being the main Sales in the North.

Scotch Mule



Scotch Mule

❑ Description

The Scotch Mule is the progeny of the Blackface ewe and the Bluefaced Leicester ram. This medium sized, polled cross-bred has a mottled brown face while the fine white wool should have a curled appearance (passed down from the sire).

└ History

Whilst the Scotch Mule has been bred in large numbers for many years, possibly as early as 1920, only recently has this unique cross been identified as such. Originally all Leicester crosses out of a Blackface ewe were termed Greyfaces, recently the success of mules has prompted breeders to identify this specific cross as being a Scotch Mule.

└ Main Purpose of the Breed

The progeny of the hardy, adaptable Blackface and the super-prolific milky Bluefaced Leicester, this hybrid combination produces a crossbred ewe ideal for today's sheep industry.

The Scotch Mule can therefore be used as a breeding ewe in a variety of circumstances ranging from harsh upland conditions to tightly stocked lowland farms, adapting readily to any situation.

Most importantly, when crossed with a modern, lean terminal sire, they produce ideal prime lambs for today's market.

❑ General Information

<i>Average Prolificacy:</i>	180%
<i>Average Birthweight of lambs:</i>	4.5kg
<i>Carcase weight of lambs at slaughter:</i>	17.2kg
(at which 87% in 2 or 3L and 80% R conformation or better)	
<i>Average days to slaughter:</i>	150
<i>Bodyweight:</i>	70kg
<i>Fleece weight:</i>	2.7kg

(Source: Redesdale EHF)

❑ Outstanding Qualities

Due to her outstanding inheritance, the Scotch Mule possesses many outstanding qualities including:

Prolificacy: inherited from both sire and dam.

Hardiness: an undisputed attribute of the Blackface.

Milkiness: another characteristic inherited from both sire and dam.

While breeding has concentrated mainly on length, conformation and milking qualities, the Scotch Mule enjoys a reputation of being a very easily managed ewe.

Scotch Mules are available in most markets in Southern Scotland, with quality breeding stock available from mid-August onwards.

Scottish Greyface



Scottish Greyface

❑ Description

As the name suggests, this has a speckled face, grey in colour. The body is long, well sprung and evenly fleshed. The wool is white and of a good length.

❑ History

Similar to the famous halfbreds, the Greyface is another example of cross breeding. By using the Border Leicester ram with the Scottish Blackface ewe, the Scottish Greyface is produced.

The Greyface is one of the earliest examples of systematic cross breeding in Scotland and has been produced there for many years. Now the Scottish Greyface can be found in all parts of the British Isles.

❑ Main Purpose of the Breed

The Scottish Greyface ewe has the same purpose as other Halfbred and Mule ewes, namely to produce quality prime lamb when put to a terminal sire.

She fulfils this purpose aided by her inherited characteristics; mothering instincts and hardiness from her dam, prolificacy and milkiness from her sire.

The Greyface wether lamb is also a highly saleable commodity, either straight from the Blackface dam or onto the store market where their potential for growth rather than over finish is a highly important factor for today's markets.

General Information

<i>Average Prolificacy:</i>	200%
<i>Average Carcase weight at Slaughter:</i>	18-20kg
<i>Average Bodyweight:</i> Mature ewe	60-90kg

Outstanding Qualities

Wherever the Greyface may be found it inherits the hardiness and mothering qualities of its dam and the frame, flesh and prolificacy of the Border Leicester. It has a thick covering of wool at birth, aiding its survival when newly born. These valuable assets go towards making the Greyface an ideal hardy ewe, which when crossed with a terminal sire produces the ideal prime butchers lamb, the majority of which can be finished straight off their mothers.

A pen of three Scottish Greyface wether lambs recently took first prize in the section for lambs by longwool sires out of hill ewes at the Welsh Winter Fair at Builth Wells. These lambs bred in Perthshire and over wintered in the Welsh Border Counties also went on to take the Reserve Championship in the Breed Society Carcase Competition at the same show.

Scottish Greyface wether and ewe lambs can be purchased at auction marts in Perth, Huntly and Inverurie.

Further information about the Scottish Greyface and its availability can be obtained from either the Society of Border Leicester Breeders or the Blackface Sheep Breeders Association.



Shetland-Cheviot



Shetland-Cheviot

□ Description

This is the first cross progeny from a North Country Cheviot tup and a Shetland ewe. The face will be white, or with limited dark spotting, and the fleece white, medium length, tight woolled and of good handling quality, with a good covering of wool from neck to tail. The body will be well proportioned, lengthy and good boned.

□ History

From the turn of the 20th Century North Country Cheviot rams have been bred with the Shetland ewe to produce what has come to be known locally as the Shetland-Cheviot. Following the realisation that a small ewe crossed with a large, fast growing sire could produce prime lamb very efficiently the attention of producers outside Shetland turned to this breed. Certainly the breed was gaining popularity through the 70s as it spread into the Orkneys, Caithness and down through Scotland.

Producers in Scotland have responded to the growing demand for their produce by forming the Shetland-Cheviot Marketing Society. The Society's main objective is to control the quality of the animal which is sold through its official sale in Aberdeen in the third week of September. Every breeding animal is inspected by at least two members of the Society's committee and after the sale contact is maintained with the buyers to ensure that they are satisfied.

❑ Main Purpose of the Breed

The Shetland-Cheviot's main purpose is to produce quality prime lamb when put to a suitable ram, normally a terminal sire. This she fulfils, whilst grazing slightly more favourable conditions than the pure bred hill ewes on Shetland, with the advantages of trouble-free lambings and ease of handling.

The hybrid vigour produced from crossing the two pure breeds ensures that the Shetland-Cheviot retains the best features of both. She is hardy, thrifty and milky with her sire's excellent conformation. Lambs are born with a good birth coat and are quick to suckle, the ewes' milkiness giving the lambs an excellent start and ensuring good weight gains.

The Shetland-Cheviot wether lamb, although not the reason for this cross, nevertheless produces a quality carcase. The conformation inherited from its sire combined with the quality of meat from its dam (claimed by some connoisseurs to be unsurpassable) ensures a prime quality carcase at a reasonable weight.

❑ General Information

Average Prolificacy: 170%

Average Lamb Weight Gain: 0.25kg/day

Average Carcase Weight: 19-20kg (at 160 days)

Average Bodyweight: Mature ewe 55kg

The increasing interest in the Shetland-Cheviot led to a series of farm trials in Aberdeenshire and Orkney, conducted by the North Scotland College of Agriculture. The six year trial (1980-85) compared the performance of the Shetland-Cheviot with that of the Scottish Halfbred and Greyface. The trials were carried out under relatively intensive conditions with stocking rates of between 5-20 ewes per hectare plus a three-month winter housing period.

These farm trials confirmed the results of MLC surveys which indicate that big is not necessarily 'beautiful'. Every year over the six-year trial period the Shetland-Cheviot returned gross margins per acre of between 25% and 33% higher than the larger crossbreeds on trial.

❑ Outstanding Qualities

The Shetland-Cheviot ewe has always been well known within Shetland for being a hardy, thrifty and milky ewe with an unequalled ability to produce a lamb with good conformation from improved grazings.

Although her performance record is good, other factors such as few problems at lambing, milkiness, good mothers and ease of handling are more appealing to the practical sheep man.

The Shetland-Cheviot is extremely economical, she eats around one third less grass, silage and concentrates than her larger crossbred relatives under upland or lowland conditions.

She is a very adaptable ewe. She will readily accept more intensive systems than those practiced on her native Shetland and adapts easily to a winter housing period as confirmed by the farm trials mentioned above.

In summer, she will produce prime quality lamb when put to a terminal sire, adapting to any conditions or systems she may encounter, thriving on less food intake than most other breeds. This means value for money, ease of shepherding and therefore increased profitability.

For further details or a list of the Society's standards for inspection contact the Society Secretary.



Welsh Halfbred ewe with Suffolk X lambs

❑ Description

The Welsh Halfbred ewe is a medium sized, white faced, polled first cross between a Welsh ewe and Border Leicester ram.

❑ History

Border Leicester rams have been used on Welsh ewes since the beginning of this century but it was not until 1955 that the Welsh Halfbred Sheep Breeders' Association was formed to market the sheep. The official sales they organised were the first in which a commercial breed of sheep was inspected prior to sale and sold under warranty. Five annual sales are held each year in Wales for ewes and ewe lambs. Only members of the Association can sell at the sales — membership is a one-off payment of £5.00 — and their sheep must have been sired by registered Border Leicester rams.

❑ Main Purpose of the Breed

The Welsh Halfbred ewe is bred to produce quality prime lamb at a low cost. She inherits the traits of hardiness and milkiness along with good foraging ability from her Welsh breeding which means she can be stocked at higher rates than some other breeds and requires less feeding of concentrates.

These factors, combined with the conformation inherited from the Border Leicester, make her

an economic lamb producer in both lowland and upland environments. Although only a medium sized sheep, the ewe is easily capable of rearing lambs as big as those from larger breeds.

The Welsh Halfbred ewe has, in general, a reputation for wearing well in the mouth and udder and this factor adds to her profitability as regards flock replacements.

A 1997 survey among Welsh Halfbred buyers from England, Scotland and Wales showed that the average classifications for those selling deadweight were U3L and R3L.

The survey also showed that while Suffolks and Texels were still the most popular choice of terminal sires, Charollais and other continental breeds were achieving similar good carcass results.

Welsh Halfbred wether lambs also find a ready market with the improved conformation and size they inherit from the Border Leicester.

❑ General Information

Average lambing percentages (1997 survey):

Upland	160-165%
Marginal land	160-169%
Lowland	164-174%

Carcass weight at slaughter of lambs by terminal sires:

34-43kg

Average adult body weight:

Mature ewe	55-61kg
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Fleece Characteristics:

Staple length	10-20cm
Fleece weight	3.2-3.6kg
Quality	46's-54's

The wool clip is of good quality white wool, used for hosiery, knitwear and tweeds. First year fleeces would grade on average 322, with other fleeces coming in the 338, 342 and 347 grades.

❑ Outstanding Qualities

The Welsh Halfbred ewe, with the hybrid vigour of a first cross, adapts to a variety of farm systems in both lowland and upland areas.

Many farms, where paid labour has had to be reduced to a minimum, find that very high lambing percentages and the number of triplets that involves, also means high losses. They find the Welsh Halfbred's lambing percentage, mothering ability and lower feed requirements more cost effective, coupled with its ability to produce good prime lambs to meet the demands of today's discerning buyers.

Sheep sold at the annual sales — at Ruthin, Builth Wells and Welshpool — are dipped against scab and inspected. In 1997 a voluntary scheme was introduced for the sales whereby breeders can give buyers of their sheep cards listing the dates of drenching, clostridial injections and dipping and the products used.



Welsh Mule

❑ Description

The Welsh Mule weighs at maturity between 60-65kg. The facial colouration varies from white to a dark mottled or speckled, depending upon breeding. They have a close textured fleece which is slightly crinkled and is of high quality.

❑ History

The Welsh Mule Sheep Breeders Association was formed in 1979 with a nucleus of 16 founder members and now has over 1200 registered producers.

The breed is the progeny of registered Bluefaced Leicester rams crossed with ewes of one of three hardy Welsh hill breeds: the Welsh Mountain, Welsh Hill Speckled Face and Beulah — all breeds having an enviable reputation for being healthy, hardy, good foragers and possessing exceptional mothering qualities.

❑ Main Purpose of the Breed

The Welsh Mule hybrid was originally developed to satisfy the demand from prime lamb producers for a prolific ewe with good growth potential, good milking capacity and, when crossed with modern breeds of meat sires, the ability to produce prime quality, long lean-fleshed lambs weighing 17-22kg in grades 2 and 3L suitable for home and continental markets.

An official survey, undertaken by the Association, of Welsh Mule females purchased at the

Association's official sales over a number of years, confirms the prolificacy of the breed under a wide range of management systems in England, Wales and Scotland.

	<i>Ewes</i>	<i>Ewe</i>
	<i>82% 2 tooth</i>	<i>Lambs</i>
Flocks surveyed	1569	1712
Total number of sheep	195,382	134,096
Percentage lambed	98%	86%
Percentage live lambs	164.4	100.3

Mature ewes can confidently be expected to produce between 175% and 190% live lambs.

☐ Outstanding Qualities

The Welsh Mule adapts readily to a wide variety of management systems. It is easy to house and handle while its hardiness, good foraging abilities, superior mothering qualities and prolificacy ensure a relatively trouble-free lambing season.

Demonstrations of breeding ewes and their lambs by a variety of terminal sires are held at the major agricultural shows and NSA events and a wide range of prime lamb producers have been very impressed with the quality of sheep and in their potential to fulfil the present-day requirements of the meat-trade.

☐ Official Show & Sales

The Association's official sales are held in September and early October in three Welsh centres — Welshpool, Builth Wells and Ruthin.

All sheep forward at these sales are subject to a most rigorous system of inspection undertaken by an officially appointed team of experienced flockmasters.

The Association's Field Officers are present at all sales and their services are available to all intending purchasers of sheep — both during and after the official sale days.

Wool and the 'Bradford Count'

The following pages give in general terms, the main characteristics of the wool produced by the main British breeds of sheep. These characteristics can be given only in average terms for though there are over 86 recognised breeds in the UK, with over 170 different grades of fleece wool listed in the British Wool Marketing Board's Price Schedule.

The two most important measurable properties of wool are fibre fineness and fibre length. These two properties, which determine for what process a particular wool is suitable, have a simple correlation; generally, the longer fibres are thicker in diameter than shorter fibres. The modern method of measurement is the micron count, although historically in the UK the Bradford Count was used.

❑ 1. Micron Measurement

Represents the wool fibre diameter.

Quoted in Microns. 1 Micron = 0.001mm.

The lower the Micron figure the finer the quality.

Approximate Comparisons	
Micron Measurement	Bradford Count
19	70
20	68/66
21	64
22	62
23	60
25	58
28	56
33	50
35	48
37	46

(Source: International Wool Secretariat/May 1990)

❑ Bradford Count

This represents Fibre Fineness and Length. The figure represents the theoretical length of yarn which can be spun from one pound of wool and is quoted in 'Hanks'.

1 Hank = 560 yards.

Therefore, 1lb of 64's quality could be spun into 64x560 yards of yarn.

The higher the Bradford Count the finer the quality. Wool qualities range from 28's (the thickest coarsest fibres) to 90's and above (the very thinnest, finest fibres). Most British wools are within the range 28's to 58's.

❑ Other Important Characteristics Are:

- (i) Softness of handle, which is normally associated with fibre fineness.
- (ii) Crimp, which affects the finishing performance and felting properties. The number of crimps per inch is also associated with fibre fineness in many types of wool.
- (iii) Colour, on which depends the range of dyes that can be used.

British Wool Characteristics

(Per British Wool Marketing Board)

NB: All British Wools normally fall within 28s to 60s classification. The lower grading numbers signify coarsest staple wools more suitable for harder wear, eg carpets etc.

<i>Breed</i>	<i>Fineness (Brad- ford count)</i>	<i>Average Fleece Weight (kgs)</i>	<i>Average Length of Staple (cm)</i>	<i>Main Uses</i>
Beulah Speckled Face	50-60	1.5-2	8-12	Tweeds, Carpets
Blackface Coarse		1.75-3	15-30	Carpets, Rugs, Tweeds, Mattresses
Black Welsh Mountain	48-56	1.25-1.5	8-10	Speciality Black and Brown Yarns
Bluefaced Leicester	48-50	1-2.5	8-15	Moquettes, Furnishings, Fabrics, Bunting
Border Leicester	44-50	2.75-4.5	15-25	Hosiery, Hand Knitting Wools, Bunting
Boreray	—	—	—	Tweeds, Carpet Yarn
Brecknock Hill Cheviot	50-56	1.5-2.5	6-10	Tweeds, Knitwear
British Bleu du Maine	54-58	4-6	8-10	Hosiery, Knitwear
British Charollais	56-60	2-2.5	4-6	Hosiery, Knitting Wool
British Friesland	52-54	4-6	10-15	Hosiery, Knitwear
British Milkshoop	50-54	2-3	10-15	Hosiery, Hand Knitting Yarns
British Oldenburgh	46-48	5-8	15-20	Hosiery, Knitwear
British Texel	46-56	3.5-5.5	8-15	Hosiery, Knitwear
British Vendéen	56-60	2-5	4-6	Hand Knitting Wools, Hosiery
Cambridge	50-56	2-3	6-10	Hosiery, Hand Knitting Yarns
Cheviot	48-56	2-2.5	8-10	Blankets, Rugs, Hosiery, Tweeds
Clun Forest	56-58	2.5-3	6-10	Hosiery, Knitting Wools, Felts
Colbred	48-56	2.5-3.5	10-18	Knitting Hosiery
Cotswold	38-48	4-7	15-25	Bunting
Dalesbred	32-40	2-3	13-20	Tweeds, Carpets
Dartmoor	36-40	6.5-8	15-20	Carpets
Derbyshire Gritstone	48-56	2.5-3	10-15	Hosiery, Woollen Trade
Devon Closewool	46-54	2.25-3	8-10	Tweeds, Hosiery
Devon and Cornwall Longwool	32-40	7-10	20-25	Rugs, Carpets, Tweeds
Dorset Down	56-58	2.25-3	5-8	Speciality Knitting Yarns

<i>Breed</i>	<i>Fineness (Brad- ford count)</i>	<i>Average Fleece Weight (kgs)</i>	<i>Average Length of Staple (cm)</i>	<i>Main Uses</i>
Dorset Horn	54-58	2.25-3	8-10	Speciality Knitting Yarns, Tweeds
Exmoor Horn	48-56	2.25-3	8-12	Hosiery, Felts, Knitting Yarns
Hampshire Down	56-58	2.25-3	5-10	Hosiery, Felts, Hand Knitting Yarns
Hebridean or St Kilda	48-50	1.5-2.25	5-15	Woollens
Herdwick Coarse	—	1.5-2	15-20	Carpets, Tweeds
Hill Radnor	48-56	2-2.5	8-14	High Class Fibres, Tweeds
Ile de France	56-60	4-6	7-8	Hosiery, Knitwear
Jacob	44-56	2-2.5	8-17	Tweeds, Hosiery, Bunting
Kerry Hill	54-56	2.25-3	6-18	Knitwear, Hosiery, Tweeds
Leicester Longwool	40-46	5-6	20-25	Lustre Yarns
Lincoln Longwool	36-40	7-10	15-35	Lustre Yarns
Llanwenog	56-58	2-2.5	6-10	Hosiery, Tweeds, Hand Knitting Yarns
Lleyn	50-54	2-3	8-12	Hosiery, Hand Knitting Yarns
Lonk	46-54	2.25-3	10-15	Hand Knitting Wools, Tweeds, Blankets, Rugs
Manx Loghtan	44-54	1.5-2	7-10	Woollens
Norfolk Horn	54-56	1.5-2	7-10	—
North Country Cheviot	50-56	2-3	8-14	Tweeds, Knitwear, Travel Rugs
Orkney	50-56	1.5-2.5	4-8	Hosiery, Woollens
Oxford Down	50-54	3-4	10-15	Hosiery, Hand Knitting Yarns
Portland	50-56	2-3	6-9	Hosiery, Hand Knitting Yarns
Romney	48-54	3-4.5	10-20	Hosiery, Hand Knitting Wools, Blankets, Carpets
Rouge de l'Ouest	58-60	1.5-2	4-5	High Quality Fabrics
Rough Fell Very Coarse	—	2.25-3.5	20-30	Carpets, Mattresses
Ryeland	56-58	2.25-3	8-10	Hosiery, Hand Knitting Wools, Tweeds
Shetland	50-60	1-1.5	5-12	Knitwear, Tweeds
Shropshire	54-56	2-3	10-15	Hosiery, Knitting Yarns
Soay	44-50	1.5-2.5	5-15	Speciality Hand Knitting Yarns
Southdown	56-60	1.5-2.25	4-6	Hosiery, Hand Knitting Wools, Light Tweeds

<i>Breed</i>	<i>Fineness (Brad- ford count)</i>	<i>Average Fleece Weight (kgs)</i>	<i>Average Length of Staple (cm)</i>	<i>Main Uses</i>
South Wales Mountain	40-50	1-2	5-7	Carpets, Rugs
Suffolk	54-58	2.5-3	8-10	Hosiery, Hand Knitting Yarns, Tweeds
Swaledale	28-40	1.5-3	10-20	Tweeds, Hand Knitting Wools, Rug Wool
Teeswater	40-48	3.5-7	15-30	Tweeds, Carpets
Welsh Hill Speckled	50-56	1.5-2	7-13	Tweeds, Carpets
Welsh Mountain	36-50	1.25-2	5-15	Tweeds, Rugs, Blankets
Welsh Mountain Badger Face	46-56	1.5-2	7-10	Carpets
Wensleydale Longwool	44-48	3.5-7	20-30	Lustre Yarns
White Face Dartmoor	36-40	5.5-7	15-20	Carpets, Bunting
Whitefaced Woodland	50-54	2-3	10-15	Hand Knitting Yarns, Carpets, Blankets

Crosses

English Halfbred	50-56	2-3	10-15	Hosiery, Tweeds, Knitwear
Scotch Halfbred	48-54	3-4	10-20	Hosiery, Tweeds, Knitwear
Welsh Halfbred	46-54	2.5-3.5	10-20	Hosiery, Tweeds, Knitwear
Masham	46-50	3-4	15-38	Carpets
Mule	46-54	2.5-3.5	10-25	Carpets, Knitwear
Welsh Mule	40-54	2.5-3.5	10-20	Carpets, Knitwear

The British Wool Marketing Board

Established in 1950, under the Agricultural Marketing Acts, the British Wool Marketing Board is now the only UK commodity marketing board. Anyone with more than four sheep is required to register with the Board, which is run by elected sheep farmers and has a statutory responsibility for handling all the fleece wool in the UK, with the exception of Shetland which has its own arrangements.

Its objectives are to market British Wool as efficiently and economically as possible in the interest of producers and consumers alike by:

- consistently achieving the best possible net return to producers
- providing a marketing service at the lowest possible cost
- improving the physical condition of the clip by producer advisory services
- stimulating demand for the clip by technical research, product development and promotion

The BWMB represents more than 80,000 registered producers who, in 1996/97, produced 45.6 million kgs from approximately 29 million sheep. Centuries of selective sheep breeding in Britain have produced a clip comprised of many varied types of wool suitable for different purposes. Overall, British wool is generally coarser than wool from the southern hemisphere and has exceptional bulk and resilience. So that, while the British clip accounts for no more than 3% of world wool, its unique characteristics are recognised and valued worldwide.

It is extremely hard wearing and resistant to rubbing and over 60% of the clip is used in the production of quality carpets, both tufted and woven, by British manufacturers for the domestic home market and for contract installations in the UK and overseas. Its durable and fire resistant properties commend it for upholstery fabrics and it is used by carpet manufacturers in Belgium and Japan, where its natural springiness is also prized by bedding manufacturers for top class futons. Finer types and the wools from naturally coloured breeds are used in country style knitwear and tweeds.

The colour of the wool, its kempiness, its resistance to compression and the length of staple are all important factors in the production of carpet yarn. The blending of carpet wools to achieve the best yarn for a particular type of carpet is a critical aspect of yarn production. Nevertheless the outstanding bulk and resilience in British Wool is evident in many of the native breeds — such as the Blackface, Welsh Mountain, and Swaledale — and in the crosses and halfbreds and this gives spinners plenty of alternative ‘ingredients’ which suit their machinery and yarn types.

The lustrous smooth handle and appearance of the Bluefaced Leicester, Teeswater and Masham make them some of the most prestigious in the British clip for speciality yarns; while Cheviot wool, with a degree of lustre which takes dye well, is used in both apparel and carpet blends, depending on the fineness of the wool. Shorter stapled, downland breeds, such as the Suffolk, Clun and Dorset are predominantly used in knitwear yarns or for the Japanese futon market.

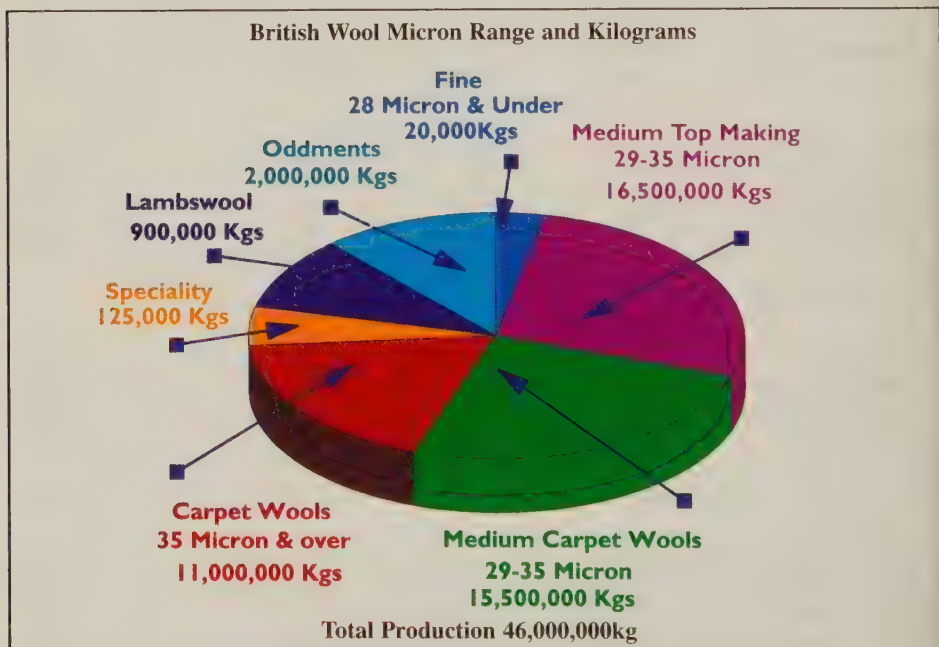
Fig 1. Analysis by Principal Description

	England kg	Wales kg	Scotland kg	N Ireland kg	Total kg
FINE/SPECIALITY WOOLS					
Bluefaced Leicester	58	13	31	15	118
Dorset	110	0	0	0	110
Shetland & Orkney	26	1	51	0	78
Suffolk & Downs	2,228	640	527	306	3,700
MEDIUM WOOLS					
Halfbreds	4,991	1,087	988	1,034	8,100
Jacob	70	9	10	0	89
Romney	478	1	1	0	479
South West Crossbred	483	0	0	0	483
CROSS & LUSTRE WOOLS					
Devon	153	1	0	0	154
Lustre	36	2	4	1	43
Masham	396	13	24	0	434
Mules	6,903	1,297	3,143	618	11,961
HILL WOOLS					
Cheviot	154	0	1,292	109	1,555
Exmoor Horn	58	0	0	0	58
Gritstone & Lonk	336	0	0	0	336
Radnor & Crossbred	294	4,546	0	0	4,840
MOUNTAIN WOOLS					
Herdwick	147	0	0	0	147
Rough Fell	306	0	0	0	306
Scottish Blackface	315	1	3,400	489	4,205
Swaledale & Dalesbred	2,374	4	22	0	2,400
Welsh	113	3,349	1	0	3,463
	20,028	10,964	9,494	2,572	43,059
LAMBSWOOL					
Fine & Medium Lamb	410	3	10	13	435
Mule & Lustre Lamb	58	10	11	5	85
Hill & Mountain Lamb	157	207	11	4	380
ODDMENTS					
Fallen, Lock & Tail	490	521	183	35	1,228
Daggings	367	168	232	27	794
	21,511	11,872	9,941	2,657	45,981
May not add due to rounding					

The varied composition of the British clip and the relatively small individual amounts of wool from producers — on average less than 600kg — makes the central marketing system operated by the Board crucial and valued by both growers and buyers. The great majority of producers selling individually could not hope to achieve anything like the full market value for their clip and, while shearing takes place just once a year on the farm, the textile industry requires a regular supply of large weights of a uniform type and quality. These are provided by the BWMB through a network of grading centres which prepare bulk graded lots for sale at auction frequently throughout the year.

Because of the variation in British Wool, it is not unusual for a grading centre to grade wool from one producers clip into more than 20 grades, largely on sight and touch. Objective measurement has not been used in the past, as 70% of the clip falls between 29-35 microns. However, in order to compete internationally, the BWMB realised that it was desirable to provide more detailed information to buyers and objective measurement trials have now been established. Core samples on representative grades of all UK wool types are being tested to international standards and certificates issued for micron, colour, vegetable matter and yield which are available on particular lots offered at auction.

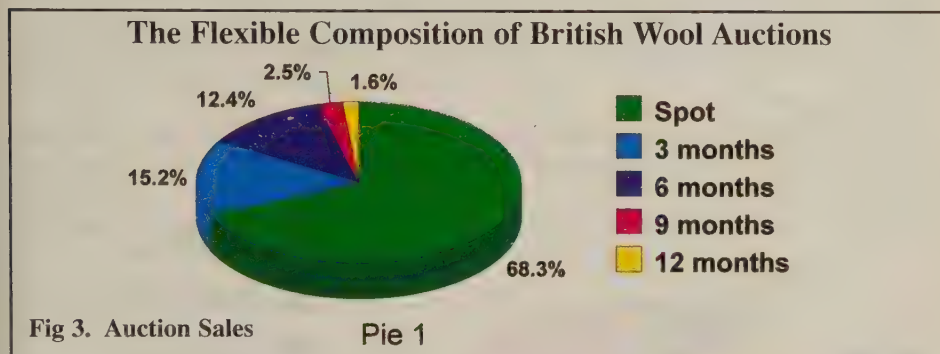
Fig. 2. Micron Graphs



The BWMB aims to provide buyers with varied offerings of wool throughout the year. Twenty-four auctions, attended by about 30 buyers, are held over the 12 month season in Bradford. A catalogue is produced for each sale and a sample bale sent by the grading depot so that buyers can value the wool before auction. It is important that the bulk of a lot agrees with the sample, which makes the consistency of grading standards extremely important.

Responding to the changes in the pattern of world trading and to give greater choice and flexibility, buyers not only have the option of buying on the day, but also for delivery and payment in 3, 6, 9 or 12 months. Around 37% of the clip is sold on this basis and this has proved popular with manufacturers who are able to hedge future contracts, to plan forward production and establish a price basis.

Fig 3. Auction Sales



It is crucially important that sheep farmers understand the requirements of the textile industry, if they are to maximise their returns. The Wool Board's Technical staff's work with producers includes wool assessment services and information to assist with breeding programmes, educational programmes and campaigns offering advice on growing, handling and presenting wool.

The Ram Fleece Assessment service, free to all producers is a simple method of obtaining expert information about the quality of wool on an animal to be used for breeding. Fleeces for assessment should be marked clearly and sent to the depot with other wool for grading and information in the reports issued will cover the strength, staple length, handle and colour of the fleeces. For a small fee, a number of rams can be assessed during a farm visit. The appraiser will be looking for the overall quality of the wool and, in particular, evidence of coloured fibre and kemp. The certificate issued following an 'on the hoof' assessment can be used at sale times as evidence of the animal's wool quality potential for breeding.

The annual Wool Producer of the Year competition is run by the Wool Board to recognise the efforts made by commercial sheep farmers farming in very different conditions who produce good quality wool through good sheep husbandry and careful wool handling and presentation.

Initial selection of competitors, for informal farm visits by Wool Board regional managers, is made through analysis of grading details. This leads to selection of six regional finalists in Scotland, Northern England, Northern Ireland, Wales, Central England and Southern England who are then visited by a team of three judges, including a respected sheep farmer and a member of Wool Board staff to scrutinise farm management, sheep and wool handling, in order to select the overall winner.

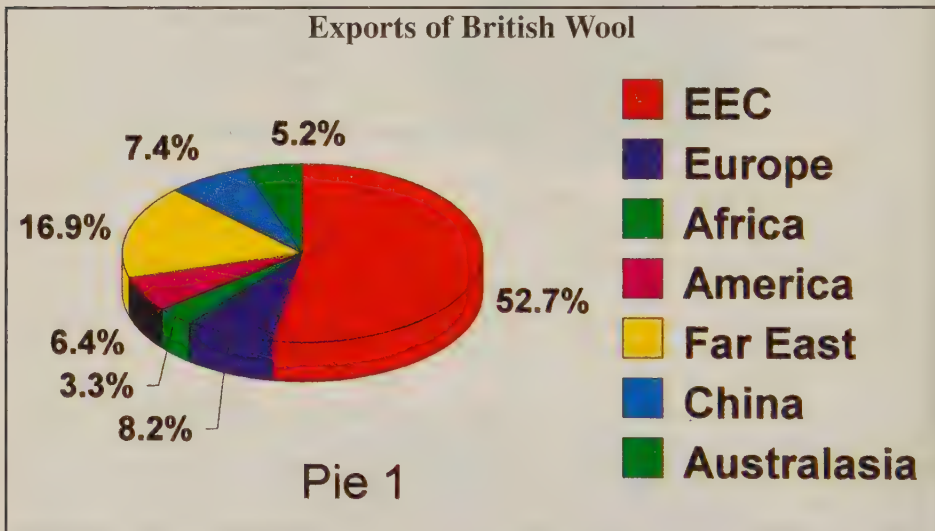
These have included Brian Thornborrow who keeps a flock of 600 Swaledale ewes on some of the highest land in England, 1250ft above sea level near Tan Hill; Howard Bates a Romney breeder running over 1000 ewes on 210 acres on the Romney Marsh; Blackface

producer Kieran Cullinan from the Sperrin Mountains who does all his own shearing of 1000 ewes and Geoffrey and Robert Hyde who run four sheep enterprises in the Dorset village of Wool and are committed to 'total quality management'.

More recent competitions, such as Identify the Breed (from a selection of fleeces) and Champion of Champions Wool on the Hoof, South West, have been introduced to promote further interest in quality wool production.

Almost two thirds of the clip is exported with Belgium/Luxembourg, China and Japan, major customers. The BWMB runs an office in Tokyo which maintains close links with Japanese manufacturers who are using British Wool and promoting it as a prestigious fibre.

Fig 4. Exports



Working alongside the textile industry, through promotion, the BWMB works to raise the profile for British Wool and extend its desirability. It licenses spinners and manufacturers to use its symbol — the shepherd's crook and Union Jack — providing the British Wool content and the retailing outlet meet BWMB criteria.

A range of promotional material, designed and produced by the BWMB marketing department, is available to licensees. Given its usage of British Wool, strenuous efforts have made by the Board in the last few years to work more closely with all sectors of the carpet industry from spinners through to retailers, with gratifying results. More than 40 manufacturers — including all the major companies — and 17 carpet yarn spinners are licensed, committed to using British Wool and feel its image is advantageous to their products.

The Board also works closely with the UK textile industry on matters of mutual interest such as environmental issues and trade missions.

Details of all BWMB Board and Regional Committee members, its personnel, activities and operation can be accessed on the Internet www.britishwool.org.uk.

Shearing

A skilled shearing force is vital to the UK sheep farming community and the BWMB is committed to encouraging and supporting training at all levels, wherever possible, and in the last few years has increased interest and opportunities. Even so, unfortunately training for both new shearers and those wishing to improve their skills is felt to be limited in some areas. Nevertheless, the Wool Board is hopeful that before too long, the gaps can be plugged and an annual target figure of 500 new shearers can be achieved and sustained. Anyone who has any interest in shearing training — at any level — and is not sure where to start, should contact the Wool Board for assistance.

As well as the Board's national shearing courses for Bronze, Silver and Gold Seals standard, ie pattern perfect — 12, 18 and 24 sheep respectively in an hour, the more recent Blue Seal is now established as a stepping stone qualification for the new entrant. It has been reasonably successful in attracting new shearers and has certainly focused attention on training and standards and highlighted a training progression route.

Many agricultural colleges are now offering these courses and should be a line of first enquiry for new shearers.

In addition, on the job top up training is also now available, when regional instructors or one of his team will, by arrangement, come along to give on farm instruction including wool handling and presentation; 'gear days' during the autumn and winter months are also run in some areas.

Full details of all the training courses available and enquiries about 'on farm' training should be directed to BWMB at Oak Mills, Bradford, Telephone 01274 882091 or fax 01274 818277 or see the Wool Board's website for up to date information.

World Sheep Populations

	1993	1994	1995	1996
	(units: m/head)			
Europe				
Greece	8.7	8.7	9.6	9.5
Italy	10.3	10.5	10.7	10.5
France	10.4	11.5	10.3	10.6
Portugal	6.1	6.0	6.2	6.2
United Kingdom	29.3	29.5	28.7	27.9
Romania	12.1	11.5	10.9	10.4
Spain	23.9	23.1	21.3	21.3
North & South America				
Argentina	24.5	23.5	21.6	18.0
Bolivia	7.5	7.7	7.9	8.0
Brazil	18.0	18.4	18.0	18.0
Mexico	5.9	5.9	6.0	5.9
Peru	11.9	12.2	12.6	12.5
Uruguay	23.9	20.8	19.8	19.4
USA	10.9	9.7	8.9	8.5
Asia				
Afghanistan	16.0	17.0	18.0	14.3
India	44.6	44.8	45.0	45.4
Iran	49.7	50.3	50.9	51.5
Mongolia	13.8	13.8	13.7	13.6
Pakistan	27.7	28.4	29.1	29.8
Saudi Arabia	7.2	7.6	7.8	7.8
Syria	10.1	11.3	11.8	12.0
Turkey	39.4	37.5	35.6	33.8
Africa				
Algeria	18.7	17.8	17.3	17.6
Morocco	11.9	13.3	16.6	16.3
South Africa*	25.7	25.9	25.9	28.9
Sudan	22.0	22.5	23.0	23.4
Tunisia	7.1	6.1	6.2	6.4
Former USSR				
Russia	48.2	40.6	31.8	25.8
Kazakhstan	33.6	33.5	24.2	18.7
Uzbekistan	8.4	9.4	9.1	8.4
Turkmenistan	6.0	6.0	6.1	6.2
China	111.6	117.4	127.3	140.4
Australia	138.1	132.6	120.9	121.2
New Zealand	50.3	49.5	48.8	47.4
Others	180.3	182.7	182.6	182.1
TOTAL	1,099.6	1,090.0	1,063.3	1,052.7

*date for 1996 includes the former homelands

Source: Wool Market Research Group — International Wool Secretariat

UK Sheep Population

	1993	1994 (Units: 000 head)	1995	1996	1997
England	20,448	20,235	19,850	19,090	19,459
Wales	11,256	11,092.5	11,190.7	10,874	10,950.4
Scotland	9,586	9,664.8	9,259	9,368.7	9,269.7
N Ireland	2,611	2,820.9	2,753.5	2,753.1	2,880.1

Source: June Agricultural Census, MAFF, DANI, WAOD, SOAFF.

Total UK Sheep Flock	43,901	43,813	43,053	42,086	42,559
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World Wool Production: Greasy 1996

	(units: m/kg)		(units: m/kg)
Australia	697	Asia	
China	298	Turkey	74
New Zealand	269	Pakistan	54
		Iran	51
Former USSR		Iraq	15
Russia	77	Algeria	50
Kazakhstan	41	Syria	29
Turkmenistan	19	Morocco	36
Uzbekistan	19	India	35
		Mongolia	20
Europe		Afghanistan	16
United Kingdom	63		
Spain	36	Africa	
Ireland	27	South Africa	67
France	17	Sudan	32
Romania	23		
		Others	191
North & South America		TOTAL	2,519
Argentina	81		
Uruguay	79		
USA	31		
Chile	16		
Brazil	15		

The Meat and Livestock Commission and the Sheep Industry

The Meat and Livestock Commission is a statutory body established in 1967 with the remit to promote greater efficiency in the livestock and livestock products industries in Great Britain, having regard to the interests of the consumers as well as those of the different sectors of the industry. The Commission's activities are related to beef cattle, sheep and pigs and the products derived from them and its income arises from a levy on animals slaughtered in Great Britain.

As part of its planning process, MLC consults with industry organisations and publishes a Corporate Plan in which its strategic objectives for red meat and specifically for the sheep sector are clearly defined. The following is an extract from the 1998-2001 Corporate Plan.

STRATEGIC OBJECTIVES FOR RED MEAT

■ Enhancing the Image of British Meat on the Home Market

The overall approach is based on enhancing the meat eating habit of the British consumer; its underlying objective is to encourage increased meat consumption by using the individual species strengths to sell their product in ways that contribute to the overall meat eating habit. Market research indicates that this can best be achieved with a double edged approach combining appeal to the consumers' emotions whilst simultaneously dealing with their rational concerns.

MLC is committed to encouraging the meat eating habit in both the current generation of meat consumers and the next. MLC works within health professionals to improve their knowledge and perceptions of red meat, positioning it strongly as a component of good preventative medicine. A similar approach is being taken with educationalists aimed at improving their knowledge and perceptions of the benefits of lean red meat, and providing resources to be used with students. Both the retail and catering sectors are being encouraged to use British meat through the provision of advice and promotional support.

■ Managing Issues That Affect the Industry

Quick, professional responses to consumer concerns are vital for the defence of the meat eating habit and of the industry. MLC has and will continue to develop a high quality issues management resource, to both pre-empt and react to potentially damaging issues. There is still a need for the industry to improve its performance in a number of areas of concern to consumers. MLC is encouraging the industry to understand consumer concerns and encourage change in the industry to mitigate them.

■ Establishing Industry-Wide Consumer Assurance

This is of fundamental importance to the enhancement of the image of British meat and forms the principal medium term route to improving consumer confidence. MLC works with the industry to ensure that a significant majority of the industry is in certified quality assurance schemes within the Assured British Meat.

■ Developing a Programme to Assist the Abattoir Sector in the Disposal of Animal Waste

Abattoir waste disposal is now a structural problem for the industry. Whilst there may be some return of markets for rendered products, these are unlikely to reach the demand value they enjoyed prior to BSE. MLC is developing some models of the whole meat supply chain, to provide a sound framework on which the industry and Government can base decisions to return the industry to normal trading over time.

❑ Developing Effective Programmes With Scotland and Wales

MLC work includes continued support for the Scotch Quality Beef and Lamb Association, Welsh Lamb and Beef Promotions and the Scottish Pig Industry Initiative, making use of brand images and product characteristics to exploit opportunities and add to the overall image of meat.

STRATEGIC OBJECTIVES FOR LAMB

In 1998, MLC introduced Strategy Councils for sheep, beef and pigmeat with the express purpose of involving industry more closely in its activities and creating a relationship of ownership. The Council met for the first time in May and has identified key strategic areas for the period 1999-2002. In the intervening period the following are the strategic objectives for British lamb.

❑ Stimulating the Demand for Lamb and Exploit the Opportunities Presented Through the Reduced Demand for Beef

The principal activity is to improve the attractiveness of lamb for the younger consumer, and other potential markets, through new presentations, taking into account the price of the raw material. There is a high level of activity in recipe and new product development and lamb features significantly in new educational work.

British lamb has an appeal for some multiple retailers outside its main season. MLC works with the industry to improve its quality and appeal at this time, including pursuing the wider adoption of the Blueprint programme. The MLC Lamb Blueprint for Lean and Tender Lamb provides post slaughter processes which enhance tenderness.

Scottish and Welsh branding has a role to play in raising consumer interest in lamb, and MLC plays a co-ordinating role to ensure that all activity with these brands contributes to overall objectives being met in the home and export markets.

❑ Improving the Ability of British Lamb Exporters to Compete and Develop Profitable Export Opportunities for Lamb

Work is targeted at securing more profitable markets for British lamb exports, particularly looking for new markets, and support for SQBLA and WLBP export activity for lamb.

❑ Provide the Sheep Industry with the Means of Improving its Competitiveness

MLC promotes the use of breeding selection indices (based on BLUP) by breeders to improve the quality of stock coming forward for slaughter. Technical improvement of these breeding programmes will continue, in particular further refinements of the BLUP programme.

MLC initiates, guides and supports programmes leading to the eradication of Scrapie from the national flock. It also provides technical support and information to underpin the management of any consumer concerns about Scrapie. The removal of spinal cord in sheep may become a requirement in the near future. Work is being undertaken to develop a process for the removal of spinal cord from the carcase, in a cost effective manner.

❑ Managing Issues That Affect the Sheep Industry

MLC continues to maintain a high level of crisis management alertness both to pre-empt and react to potentially damaging issues. In particular MLC has already put in place a programme to assist the industry in coping with a media campaign on Scrapie, should it occur.

❑ Establish Industry-Wide Consumer Assurance

MLC will work with the industry to secure a high level of membership of Assured British Meat.

❑ Developing Effective Programmes with Scotland and Wales

Scotland and Wales are encouraged to develop the value of their brands and to market them in a way that optimises their penetration whilst contributing to the overall image of meat.

EU SHEEP NUMBERS: DECEMBER CENSUS ('000 head)

	1993		1994		1995		1996 (provisional)	
	Total Sheep	Ewes & ewe lambs put to ram	Total Sheep	Ewes & ewe lambs put to ram	Total Sheep	Ewes & ewe lambs put to ram	Total Sheep	Ewes & ewe lambs put to ram
Belgium	127	92	119	86	118	83	116	81
Luxembourg ⁷	5	6	5	7	5	6	5	
Denmark	87	85	79	74	93	77	93	80
Germany	2,369	1,700	2,340	1,696	2,395	1,686	2,263	1,642
Greece	10,069	6,744	9,232	6,009	9,606	6,359	9,106	5,835
Spain	23,836	18,119	23,018	17,603	21,301	15,741	21,727	16,013
France	10,452	7,920	10,320	7,755	10,057	7,680	10,126	7,651
Irish Republic	5,990	4,676	5,775	4,545	5,583	4,372	5,391	4,312
Italy	10,461	7,765	10,681	7,898	10,690	8,540	10,920	8,650
Netherlands	1,300	970	1,300	975	1,450	1,080	1,650	1,240
Austria	334	203	342	209	365	214	381	223
Portugal	3,305	2,222	3,416	2,289	3,428	2,301	3,380	2,265
Finland	79	58	80	60	115	80	111	77
Sweden	471	282	483	288	461	266	469	266
UK	29,333	20,343	29,484	20,169	28,797	19,646	27,911	19,211
EU-15	98,220	71,184	96,675	69,661	94,466	68,130	93,650	67,551

Source: OEC

SHEEP PRODUCTION IN THE EU 1996

Slaughtering	Av carcase weight	Slaughtered production	Live imports	Live exports	Indigenous production	Exports	Imports	Total Consumption	Self sufficiency
000 head	kg	000 tonnes	000 tonnes (a)	000 tonnes (a)	000 tonnes	000 tonnes (a)	000 tonnes (a)	consumption per head	%
Belgium/Lux	20.2	5	3	2	4	9	26	22	18
Denmark	26.3	2	—	—	2	1	5	6	33
Germany	19.8	43	1	1	43	5	56	95	45
Greece	10.5	131	2	2	131	1	13	143	92
Spain	11.0	238	7	7	238	8	14	244	98
France	16.9	154	11	11	154	11	163	306	50
Irish Republic	20.6	90	9	4	85	65	1	26	327
Italy	9.3	78	23	—	55	—	22	100	55
Netherlands	24.8	18	5	13	26	6	11	23	113
Austria	22.9	7	—	—	7	—	3	9	78
Portugal	19.9	26	—	—	26	—	11	37	70
Finland	19.7	1	—	—	1	—	1	2	50
Sweden	18.4	4	—	—	4	—	3	7	57
UK	19.1	345	2	36	379	130	154	371	102
EU-15	14.4	1,142	15	28	1,155	9	253	1,391	83

Source: OEC (MLC). (a) Dressed Carcase Weight Equivalent.

Rare Breeds Survival Trust

In 1968 the Royal Agricultural Society of England and the Zoological Society of London set up a working party to study the problems of the less popular breeds of livestock. During the 20th Century already 26 breeds of British livestock had become extinct with the resulting loss of valuable genetic material and the working party advised that a national organisation should be established to save breeds which were in danger of extinction and to support those breeds that were not currently in popular demand. Thus in 1973 the Rare Breeds Survival Trust was launched, a Company limited by guarantee which also enjoys the status of a registered Charity.

In 1973 the Trust carried out a survey of British breeds in order to determine population levels and trends. It was not surprising to find that 'forgotten' breeds such as the Portland and Manx Loghtan were very rare with only about 100 breeding ewes in each breed, but the presence of some Longwool and Down breeds high on the list of rarity was not expected. Both the Wensleydale and the Lincoln are longwool breeds with an important history, but more significantly they both possess valuable qualities which can make an important contribution to the modern sheep industry. Likewise, many of the endangered Down breeds can play an important role as the sire of finished lamb at various weights with traditional quality. The numbers of all endangered breeds have increased since the formation of the Trust, as illustrated by the examples of the Wensleydale and Hebridean.

Increase in Population Size of Two Breeds

Breed	Population Size	
	1973	1995
Wensleydale	226	1248
Hebridean	319	1779

Apart from population levels and commercial value the Trust feels that various other factors justify the conservation of rare breeds. Many of them are an integral part of our history and heritage. The Portland, for example, is the progenitor of the Dorset Horn, while almost all Longwool sheep in Britain and many breeds abroad owe a major part of their ancestry to the Leicester Longwool. Other breeds possess unique characteristics which may be of great value in research. The North Ronaldsay is adapted physiologically to a diet of seaweed and provided valuable information on protein utilisation and copper toxicity in work carried out at the Institute of Animal Physiology and Genetics.

Because many rare breeds have not been subjected to artificial selection pressures and have evolved in small self-contained populations, they are not closely related to more popular breeds and frequently they are inbred. Inbreeding itself may be of little value but it confers significant hybrid vigour in crossbreeding, especially in the sheep stratification system upon which the major part of the British sheep industry is based. Thus rare breeds can make a valuable contribution through hybridisation. Already Manx Loghtan ewes have shown good commercial qualities in crossbreeding systems while Whitefaced Woodland rams have been used on ewes of other hill breeds to achieve greater size and vigour in the progeny.

The Rare Breeds Survival Trust has developed a Traditional Breeds Meat Marketing Scheme in order to exploit the special and distinctive quality of meat from rare breeds. A network of

specialist high-quality butchers has been established throughout the country in order to make the products of rare breeds available more widely. Rare breeds may also possess qualities, which at present have not been evaluated or even discovered. It is not possible to predict future market requirements, and we cannot state with any certainty which breeds will be required to meet a continually changing demand. The Trust's effort to conserve rare breeds is motivated by these factors rather than by sentiment alone.

The Trust provides a wide range of services to owners of rare breeds.

- **Genetic Conservation**

Many projects to support rare breeds have been undertaken including the creation and administration of the combined Flock Book.

Combined Flock Book — Annual Registrations

Breed	Registrations	
	1989	1996
Boreray	12	35
Castlemilk Moorit	108	308
Manx Loghtan	466	729
Norfolk Horn	181	418
North Ronaldsay	146	262
Portland	381	518
Soay	370	406
Whitefaced Woodland	391	443

- **Research**

A far-ranging programme of research has been initiated by the Trust, including blood-typing, carcase evaluation, analysis of breed structure, ease of parturition, and a survey of congenital defects. These projects are of potential value to the whole sheep industry.

- **Evaluation of Breeds**

Owners of these breeds are encouraged to maintain records which are collated and analysed centrally. The Information Bank which is being built up reveals that these breeds possess valuable and often unusual qualities. In particular their scrapie status is being evaluated and a high level of scrapie-resistance has been demonstrated in breeds such as the Portland, Wensleydale and Cotswold.

- **Technical Advice**

The Trust conducts a wide variety of scientific projects and a continuing series of on-farm workshops. Information relevant to the management of minority breeds is published in the quarterly journal, the ARK.

- **International Co-ordination**

The Trust is involved also with the global conservation of rare breeds through Rare Breeds International. Conservation work has been initiated or aided by the Trust in several European countries and in North America; where numbers permit rare breeds have been exported.

An increasing number of commercial farmers now appreciate the qualities of several lesser known breeds and are establishing breeding units for either purebreeding or crossbreeding. The Trust is co-operating with them to record and evaluate their stock and is performing a vital function by ensuring that such breeds are conserved for the use and enjoyment of both present and future generations.

RARE BREEDS SURVIVAL TRUST

LIST OF PRIORITY & MINORITY SHEEP BREEDS

PRIORITY BREEDS

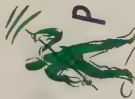
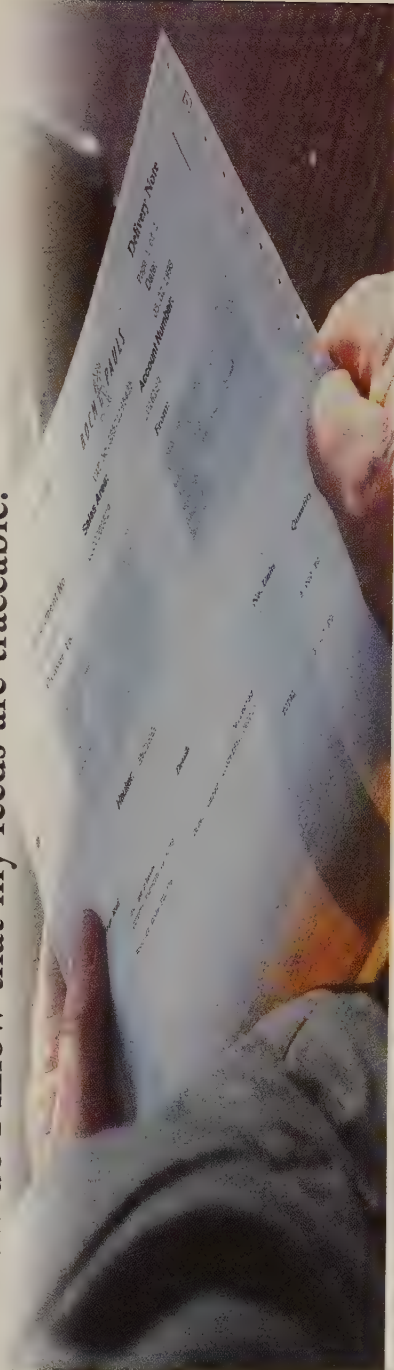
- | | |
|-------------------------------|---|
| Category 1 Critical: | Castlemilk Moorit |
| Category 2 Endangered: | Galway
Leicester Longwool
Norfolk Horn
Whitefaced Woodland |
| Category 3 Vulnerable: | Balwen
Cotswold
Hill Radnor
North Ronaldsay
Portland
Soay
Teeswater |
| Category 4 At Risk: | Dorset Down
Greyface Dartmoor
Lincoln Longwool
Llanwenog
Manx Loghtan
Shropshire
Southdown
Wensleydale |
| Category 6 Feral: | Boreray |

MINORITY BREEDS:

Hebridean
Kerry Hill
Oxford Down
Ryeland
Shetland
White Face Dartmoor
Wiltshire Horn



**RARE BREEDS
SURVIVAL TRUST**



BOCM PAULS

Sheep and Goat Health Schemes

SAC have been running the Sheep and Goat Health Schemes since they were privatised by MAFF in April 1996. The Schemes exist to give producers in Britain the opportunity to prevent the spread of maedi visna (MV)/caprine arthritis encephalitis (CAE) and enzootic abortion of ewes (EAE). It is a voluntary scheme which offers members national recognition by providing certificates of health status denoting freedom from disease. The scheme is run by a board with representatives from the industry. The SAC Veterinary Science Division works closely with veterinary practices throughout the country and operates the blood testing service through its veterinary centres. The customer services team provide a national centralised administration centre and offer a helpline for flock masters and veterinary surgeons.

The MV accreditation scheme was founded some 15 years ago as a preventative measure following the introduction of MV into Britain from imported breeds. Members blood test their animals on a regular basis and keep them apart from non-accredited animals. Shows and sales are licensed by the Bureau at Milton Keynes to provide space for MV/CAE accredited stock.

MV is caused by a slow acting virus which can infect sheep at any age although the clinical signs do not appear until sheep are older (2-4 years). MV affects the lungs and central nervous system and the animal can suffer from pneumonia, progressive paralysis, wasting, arthritis and chronic mastitis. The disease can be transmitted by lambs suckling infected milk, inhalation through the nose and mouth and cross contamination of blood from punches and needles. The disease is fatal and there is currently no vaccine available. Sheep which appear healthy but are infected with MV can spread the disease throughout a flock. By the time clinical signs show as much as 60% of a flock can be infected. In a recent survey conducted by SAC on 44,000 bloods collected by the State Veterinary Service nearly two in every 1000 blood samples were found to be infected with MV. The results showed that the virus is widespread affecting many different breeds of sheep throughout the country. These findings have been reflected in a number of recent MV breakdowns in flocks.

SAC have introduced an MV monitoring scheme to serve the larger commercial flock. It was recognised that commercial flock masters were discouraged from becoming MV accredited firstly because of the expense of qualifying and secondly because of the strict isolation rules. The MV monitoring scheme is a relatively low cost scheme which requires only one qualifying test and does not insist on total flock isolation. While it is not equivalent to the MV accreditation scheme it does provide a pool of tested commercial animals in the national flock.

The Premium Health Scheme for EAE was already run by SAC in Scotland prior to the privatisation from MAFF and consequently replaced the MAFF EAE monitoring scheme. Nearly a quarter of the breeding stock in Scotland are EAE accredited and now producers in England and Wales are joining. Members test their ewes within three months of lambing. The scheme is restricted to flock masters who have not used an EAE vaccine or purchases EAE vaccinated stock. Flock masters have formed themselves into producer groups to market their high health status breeding stock. EAE is a highly infectious disease which once established within a flock is difficult to eradicate. EAE is transmitted during the lambing period. Sheep can become infected when they inhale the organism by sniffing aborted lambs and afterbirth. Ewes which are infected in one lambing season will often abort prior to the subsequent one. Some flocks can experience abortion storms of up to 30% slashing gross margins by half. The major source of infection into a clean flock is the purchase of infected females. The Premium Health Scheme provides a source of 'clean' breeding replacements in the national flock.

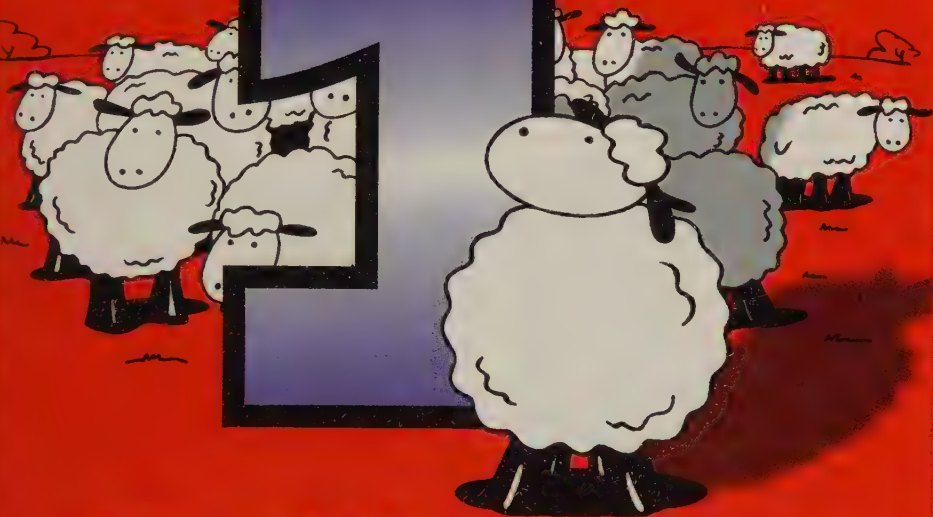
For further details contact:

Sheep and Goat Health Schemes, PO Box 5557, Inverness IV2 4YT. Tel: 01463 226995. Fax: 01463 711103.

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Preparation of Sheep for Breeding

Jonathan Hunton MRCVS – Edinburgh Genetics

The Ram

A ram chosen for breeding should not only be genetically superior but also be in good physical condition prior to mating. Although this may seem obvious, many vets have seen cases where physical problems, that could have been picked up prior to mating, have gone unnoticed and resulted in sub-optimal pregnancy rates. Development of spermatozoa within the ram's testes takes 6-8 weeks. If a ram becomes ill or is in poor physical condition it may take at least 6-8 weeks after he appears to be fully recovered before normal fertility is achieved. Therefore ram preparation should begin at least two months before the start of the breeding season.

There are several aspects of ram management that the breeder should be checking.

Physical

There is no point in having a ram with large testes and an active sexdrive if he has difficulty in walking to food and water, and is unable to eat or drink properly when he gets there. Rams lose condition during the breeding season and must be able to maintain some strength whilst 'working'. A ram may not serve a ewe because of foot or leg problems (eg arthritis, foot abscess, physical injury) or due to damage to the penis, so have a good look at all his feet and joints. Check for warmth in the limbs and note any soft or hard swellings. Check his teeth and gums for damage and the back of the mouth and cheeks for any lumps or impacted feed. If in doubt have a vet check him over. Ideally a serving capacity test, where a ram is exposed to a group of oestrous ewes, should be arranged prior to the breeding season. Such a test would quickly reveal any problems that may hinder a ram's ability to mate successfully with ewes.

Nutrition

A ram should be in above average body score but definitely not be too fat. The ram should be placed on a rising plane of nutrition commencing 6-8 weeks before he is required to 'work'. A diet comprising 'ad lib' quality roughage and concentrates containing protein sources such as fishmeal and soyabean meal would be recommended. A concentrate diet should avoid high levels of magnesium and calcium to decrease the risk of urinary calculi. If a particular farm has a history of low copper and/or zinc, rams should be supplemented with these.

In some situations the strategy of individual penning may be beneficial from both a behavioural and dietary point of view. Separating rams from each other at least two weeks prior to mating prevents inter-male aggression and homosexual behaviour.

Health Treatments

The lag phase of at least 6-8 weeks of sub-optimal fertility following recovery from an illness has other implications. If a ram is suffering from an infection that is not immediately obvious (such as a significant intestinal worm burden), his production of meat, wool and spermatozoa will suffer. Measures taken to counter these problems, should be carried out 6-8 weeks before the animal is needed.

If it is not already part of the management programme it would be advisable that all potential sires should be treated for internal and external parasites, have their feet trimmed, be vaccinated, shorn, given multi vitamins (especially vitamin E) and selenium if required.

Health-Testing

Rams should be tested for Border Disease, and *Actinobacillus Seminis* before being used in the flock. This especially applies to any rams purchased from outside the farm whose health status is uncertain. These diseases have the potential to be spread via semen.

□ Examination of Genitalia

This is fundamental. Time should be taken to rule out any visible problems that may influence your ram's performance. It would be advisable if your vet showed you how to carry out examination of the penis and testes on the first occasion and discussed the problems that might be encountered. It helps if the ram is in the sitting position and as upright as possible. Check the area around the opening where the penis protrudes (prepuce). It should be free of sores. Carefully extrude the ram's penis manually. This can be done by grasping the penis within the sheath lower down with the other hand and pushing upwards. This action should straighten out the natural flexure of the penis. Occasionally more than one attempt is needed to exteriorise the tip of the penis. Once the penis is exposed examine it carefully to ensure there are no sores, scars or adhesions of the skin around the penis. The worm-like attachment at the tip of the penis (vermiform appendage) should be intact and move freely.

Next check the testes. The scrotum should appear free of any lesions and both testes should move up and down freely within the scrotum. The testes themselves should feel firm, similar to ripe fruit. There should be no hard lumps or soft swellings which could indicate the presence of abscesses, ruptured veins, cancers, infection of the reproductive tract, or injury. If the testes feel flaccid and soft, the production of spermatozoa may be poor. If each testicle is gently pushed down to the base of the scrotum it should be possible to feel the tail of the epididymis at the base of each testicle (see photograph below left).



The epididymis is the storage organ for spermatozoa and as such should be firm but not hard or swollen. Each epididymis should be about the size of a walnut. Both testes should be similar in size and feel, if not there could be a potential problem. Any ram that has or is suspected of having an abnormality should be checked by a veterinary surgeon. If there is a query about the fertility of a ram it is possible to collect a sample of semen and assess it for motility and spermatozoa concentration. Although the presence of motile spermatozoa in high numbers is not necessarily a definite guarantee of a ram's fertility, it is a very good indicator (see above right).

The Ewe

Aspects of ewe preparation should be addressed 6-8 weeks before breeding commences.

□ Breeding History

Lambs should be weaned at least eight weeks prior to commencement of breeding. Good record keeping will allow you to take a closer look at those ewes that didn't perform well last year. Scrutinise ewes that have had problems conceiving, lambing or raising marketable offspring.

Poorly grown gimmers will probably not be cycling early in the season. It is important that young

ewes are cycling naturally if they are to be synchronised for natural mating or artificial insemination (AI). If you intend to breed early see the section on use of the 'Ram Effect'.

❑ Physical

All breeding animals should be of good conformation and free of genetic faults. Check the mouth and limbs for abnormalities. Breeding ewes should also be free of any respiratory problems.

Ewes should be examined for functional teats and damage to udders or the vulva region. Very small teat and vulva size in gimmers may indicate a developmental problem (eg Hermaphrodite). Occasionally ewes have undersized or blind ending vaginas. Such ewes should be culled.

❑ Nutrition

A body score of 3.0-3.5 is ideal. If ewes are too fat or too thin they will have problems conceiving. If an animal is score 2.0 or less she should be placed on the best grazing at least eight weeks before mating. Her condition should be re-assessed three weeks later and if no improvement is seen, with no obvious explanation for the problem (eg parasite burden), then she should probably not be used for breeding. If ewes are score 3.5 and fatter they should be run tight to ensure they are not overfat at the beginning of the breeding season.

Any trace element deficiencies should be corrected well before mating starts. Those elements and vitamins found to be important to reproductive performance are Vitamin E, Selenium, Copper, Manganese, Zinc, Iron and Cobalt. If there is a history or suspicion of trace element deficiency a veterinary investigation for these elements should be considered. At least advice regarding some form of supplementation (via licks/injection) should be sought.

Extremes of feeding should be avoided during the early pregnancy period. The best strategy is to have the ewes on marginally improving nutrition during the 6-8 weeks leading up to mating with an aim of condition score 3.0-3.5 at commencement of mating. The ewes should be maintained in this condition for the first month.

❑ Health Treatments

All routine treatments such as foot trimming, dipping, drenching, clipping, vaccination should be completed well in advance. All vaccinations should be carried out strictly in accordance with veterinary or pharmaceutical advice. Abortion vaccinations for either Enzootic Abortion (EAE) or Toxoplasma should be considered in infected or at-risk flocks.

❑ Stress

Ewes should have access to plenty of shade and water. Prolonged exposure to any form of 'stressor' such as dogs, transporting, extremes of weather and pain can cause embryo loss in the early stages of pregnancy. Once the embryo has successfully implanted and commenced developing by about day 30 after conception such stressors will not have the same catastrophic result. However, any stress should be minimised as much as possible throughout pregnancy.

❑ The Ram Effect

The market place demands that many ewes within the UK commence breeding very early in their natural breeding season. As a consequence many ewes (especially gimmers) may not be cycling when breeding commences. In the case of a synchronised breeding programme if more ewes can be cycling before they are sponged, a more successful synchronisation and subsequent conception rate (either naturally or to AI) can be expected.

The introduction of a ram to a group of ewes that have had no previous contact with a ram since the previous season will stimulate the ewes to come into heat. The timing of the induced oestrus is reasonably predictable and the ewe should carry on cycling normally as a result. Ewes cycling for the first time that year will often short cycle or even have a silent heat. Therefore there is an increase in ewe fertility with the second and subsequent cycles. This 'Ram Effect' can be used to

ensure ewes are cycling at the time when entire rams are introduced to the flock (natural service) and prior to sponging (synchronised AI programme). Ewes have an opportunity to conceive sooner and the overall lambing period will be shorter.

❑ How to use the Ram Effect

Immediately after weaning your ewes, isolate them as far away from all sexually active rams as possible (including billy goats!). Isolation in terms of physical, visual, sound and smell are vital if the Ram Effect is to work.

If AI'ing or mating using sponges, introduce a vasectomised ram (teaser) 3-4 weeks prior to your AI date. This teaser should have a good libido. In an ideal situation at least one teaser per 25 ewes is recommended. Please note that vasectomies need to be carried out by your vet in time to allow the ram to fully recover and for any existing semen to be removed naturally. After 50 days your veterinary surgeon should check to determine that the vasectomy has been successful before his use in the flock. In subsequent years rams should also be re-checked to ensure that no 'mending' of a vasectomy has occurred — a very rare possibility.

For synchronised mating intravaginal sponges need to be inserted two weeks prior to the mating/AI date. The vasectomised ram can be removed at this stage then reintroduced wearing a harness 12 hours after sponges are removed and up until mating/AI time. The running of a teaser ram with ewes in an AI programme is thought to increase synchrony and aid conception rates.

For non-synchronised matings the teaser can be introduced two weeks before you introduce the entire ram. He will synchronise the ewes to enable a quicker more efficient lambing period.

❑ Post-mating Management

As mentioned previously avoid potential stresses for at least one month and maintain body condition. If AI is used, then all ewes not returning to AI should be ultrasound scanned as early as possible. This will help identify those ewes that have not held to AI and which have not returned to oestrus. Such ewes may not cycle until late in the season. This can happen when AI is performed early in the breeding season on a synchronised oestrus. If ewes are not pregnant your vet can advise on the use of sponges and drugs to bring them back into season. Conventional scanning at 45-55 days post mating allows for selective feeding of single versus multiple bearing ewes and the identification of non-productive ewes.



Artificial Breeding and The British Sheep Industry

Ian McDougall MRCVS Edinburgh Genetics

The uptake of the artificial breeding technologies AI and ET by the pedigree sheep industry has increased dramatically since the mid 1980's. Research and development and the subsequent commercialisation of these technologies were aided by the efforts of Prof Will Haresign, Prof John Robinson, Dr W McKelvey and Ian McDougall. Ten years on, these four individuals are still actively involved in the UK sheep industry.

British flock masters were quick to realise the benefits of these new technologies, such that during 1997, 30,000 ewes were inseminated using the intra uterine "LAP AI" technique, more than 500 donor ewes underwent super-ovulation and embryo transfer and in excess of 50,000 doses of semen were frozen. These new technologies have been utilised by the sheep industry in various ways:

❑ Improving General Flock Management

Flock masters routinely use LAP AI in conjunction with fresh or frozen semen ensuring a tighter lambing period and increased sire use for a given period. AI has also enabled the efficient use of syndicated rams.

Ewes conceiving to AI lamb over five days, thereby reducing labour costs at lambing and allowing better utilisation of staff. Greater supervision at lambing has decreased lamb mortality. Lambing to AI is timed so that a high percentage of lambs are born within 2-3 days of the most suitable lambing date, giving more lambs a better chance to be well-grown for the early ram lamb sales. Feeding and management of ewes can be more accurate, as ewes holding to AI will be at the same stage of pregnancy.

Frozen semen is routinely traded which has been very popular for the smaller pedigree flock owner, giving ready access to some of the top rams in the country. Semen freezing has also provided excellent insurance against infertility and mortality on numerous occasions.

Embryo transfer, a more specialised and expensive procedure, has been well accepted. It has enabled the multiplication of genetically important maternal lines, improved the rate of genetic gain within flocks, used in intra-flock disease eradication, facilitated international trade and enabled the storage of valuable and rare genetic material.

These new technologies have given the flock master a much greater degree of control over the reproductive performance of the flock.

❑ Importation of New Genetics

The Sheep Dairy industry led the way in 1987 with the importation from Switzerland, of frozen East Friesland semen from rams with milk records. The Poll Dorset breed has made significant gains in growth rate, carcase lean content and easy care characteristics, with the importation of frozen semen from Australia. Likewise the Vendéen breed with the importation of frozen semen from France.

Various minority breeds including the Ryeland, Lincoln Longwool, Leicester Longwool, Hampshire Down and Southdown have expanded their genetic base through the importation of frozen semen or embryos from Australia and New Zealand.

❑ Exporting Genetics

The advent of semen and embryo freezing, has enabled the export of frozen semen and embryos

from British sheep to countries who have long banned the importation of live animals, eg USA and Canada. British semen and embryos have also been exported throughout the world.

❑ Genetic Improvement

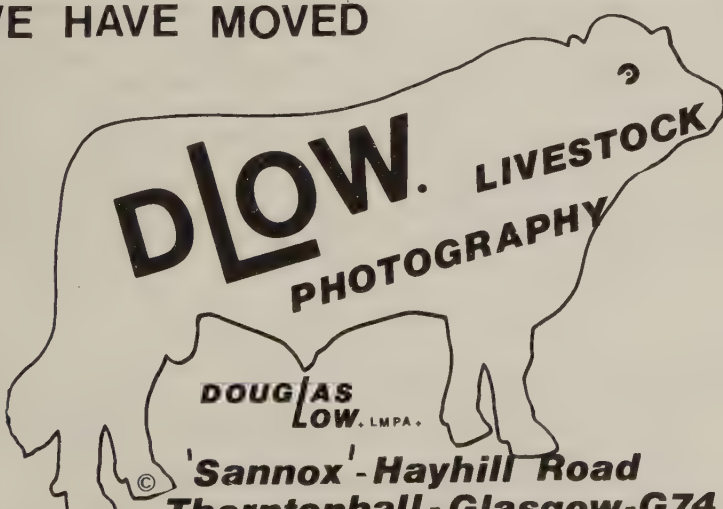
AI and semen freezing technology has enabled pedigree breeders of over 12 different breeds to form group-breeding schemes, based around the principles of sire referencing. Utilising the on-farm animal recording and BLUP data analysis services of MLC and Signet in conjunction with semen freezing and LAP AI, considerable genetic progress is being achieved in the efficient production of lean meat and enhanced maternal traits.

Genotyping for resistance to scrapie is becoming more common. Rams with a desirable genotype are being more widely used via LAP AI. Embryo transfer is being used to 'rescue' the genetics from elite rams and ewes that have an undesirable scrapie genotype.

❑ The Future

Considerable research is currently being undertaken to further improve the conception rates to AI with frozen semen and potential methods of inseminating intra-uterine via the cervix are being investigated. Non surgical techniques for embryo recovery and transfer and the potential role for IVF are additional areas of current research.

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New Methods for Controlling Scrapie

Dr A McLean and Dr N Hunter

Scrapie is an infectious disease of the nervous system of sheep. Its most common symptoms are itching, nervousness and loss of co-ordination. It tends to affect only one or two animals at a time rather than a whole flock, and it is restricted to adult animals, not lambs. However, diagnosis is not straightforward and even experienced veterinarians can misdiagnose listeriosis as scrapie. It is only on studying the dead animal's brain that a definitive diagnosis can be made. Scrapie is untreatable, inevitably leading to the death of an affected animal. There are further, indirect costs to having scrapie infection in a flock. It is illegal to export breeding animals to Europe from a flock where scrapie has occurred in the last two years, and even home markets may be unwilling to buy from a flock known to have had recent cases. Because of these direct and indirect costs, it is considered desirable to control scrapie, but it is not clear how this can be achieved through changes in husbandry alone.

Not all animals develop scrapie, even if they are exposed to the infectious agent. Recent advances in veterinary genetics have pinpointed the genetic code that determines which sheep will develop scrapie and which will not. This scientific advance means that a blood test can be used to find out which animals in a flock have the genes that protect them from developing the disease. What is more, because such genes can be passed on to the next generation, blood tests can be used to plan a breeding programme, which should eventually lead to the eradication of signs of scrapie from a flock. The genetic code determining an animal's degree of resistance to scrapie is referred to as its PrP genotype and performing the blood test is referred to as 'genotyping' an animal. Scrapie is not a genetic disease, however, and exposure of susceptible animals to an infection is first necessary before the disease will develop.

The exact relationship between the PrP genotype of an animal and its ability to resist scrapie varies from one sheep breed to another. Another complicating factor is that since the genetic code is inherited in pairs (one from each parent) an animal that is itself able to resist scrapie can still produce lambs that develop the disease if exposed to infection. To help overcome these complexities the Chief Veterinary Officer's Scrapie Information Group has produced a ranking that allows the results of a blood test to be expressed by allocating the tested animal to a risk group category. The risk groups range from R1 – indicating sheep that are themselves at very low risk of developing scrapie and whose offspring are also at low risk – to R5 – indicating sheep that are at the highest risk from scrapie. A breeding programme to increase the ability of a flock to resist scrapie can be put into place by genotyping rams and then breeding from those with low scrapie risk (ie in category R1 or R2). More extensive breeding programmes where both rams and ewes are genotyped are also possible and will lead to faster achievement of a flock of scrapie-resistant sheep.

Table 1. Scrapie Information Group classification of risk group categories.

Risk Category Scrapie Resistance Properties	
R1	Very low risk of scrapie in the individual sheep and low risk in the first generation progeny
R2	Low risk in the individual sheep and first generation progeny
R3	Low risk in the individual sheep, but some progeny may be at risk depending on the genotype of the other parent
R4	Scrapie may occasionally be recorded in this genotype and a higher proportion of the progeny are likely to be at risk compared to the progeny of R3 sheep
R5	Sheep at greatest risk from scrapie

With the new genotyping technology and careful breeding programmes it should be possible to produce flocks of sheep in which scrapie no longer occurs, but there are a couple of theoretical drawbacks. One is that in the process of breeding out scrapie, one might also lose desirable breed characteristics like high growth rate or good wool quality. The other is that new strains of scrapie might arise that are able to infect sheep that were resistant to the old strains.

Mindful of these possible complications, the Institute for Animal Health is running a number of studies of the epidemiology of scrapie and of the implementation of PrP genotyping and is currently recruiting farms into these studies⁽¹⁾. Participating farms can expect to have their whole flock PrP genotyped without charge. Farms with and without an ongoing problem with scrapie are needed. The genotyping test is also available as a commercial service from the Veterinary Laboratories Agency and the SAC's Veterinary Sciences Division.

For further information contact:

A McLean at the Institute for Animal Health on 01635 577282 to find out more about enrolling in IAH's studies of scrapie epidemiology and control.

To find out about commercial genotyping services contact: M Dawson at the Veterinary Laboratories Agency on 01932 357570 and B Hosie at SAC on 0131 445 5544.

⁽¹⁾ The Veterinary Laboratories Agency is also running studies looking at the epidemiology of scrapie in infected flocks. The contact for further information is Linda Hoinville on 01932 357495.

The George Hedley Award

This award was created in 1960 by NSA to honour the memory of George Hedley. Nationally known, he farmed in Peeblesshire and Roxboroughshire. As Chairman of NSA he was travelling to a Council meeting in London on 26th January 1960 when he had a fatal accident.

The award is a statuette of a South Country Cheviot sheep, the breed favoured by George Hedley, presented every year to the person who, in the opinion of NSA, has given outstanding service to the sheep industry.

The Association invites nominations from a wide range of organisations connected with the sheep industry. The Council selects the nominee who is subsequently presented with the award. The list of recipients gives some idea as to the prestigious value with which it is held by the industry.

List of recipients to date:

- 1961** Dr R F Montgomerie, BSc, PhD, FRCVS. Director of Veterinary Research, Wellcome Foundation Ltd. For his research work on many sheep diseases leading to improved methods of control.
- 1962** A R Wannop Esq, OBE, FRSE, BSc. First Director, Hill Farm Research Organisation. He was largely responsible for building up a soundly based research body specialising in hill farming problems and the use of marginal land.
- 1963** Oscar Colburn Esq, Farmer, for his pioneer work in sheep breeding.
- 1964** Dr J T Stamp, DSc, MRCVS, FRSE. Director of the Moredun Institute, Edinburgh. For his research on sheep diseases, particularly Scrapie, Enzootic Abortion and Johne's Disease.
- 1965** Dr Walter Downing, FRCVS. Cooper, McDougall and Robertson Ltd. For his research into the control and successful application of external parasites.
- 1966** H B Parry, MA, MRCVS. Sheep Development Association. For his work on recorded health systems and research on scrapie.
- 1967** W T Rowlands Esq, OBE, MRCVS, DVSM. For his distinguished service to the sheep industry, particularly Welsh farmers.
- 1968** Dr Allan Fraser, DSc, MD. For his work as Research and Advisory Officer on sheep at the Rowett Research Institute, Aberdeen and later at the University of Aberdeen.
- 1969** John Drinkall Esq, CBE, DSc. Chairman, British Wool Marketing Board. In recognition of the excellent service provided by the BWMB to British sheep farmers under his chairmanship.
- 1970** John Chilman Esq, MBE, JP. For his wide ranging service on behalf of sheep interests, including the reclamation of marginal land on the Welsh Borders.
- 1971** Prof C R W Spedding BSc, MSc, PhD, F.I.Biol. Grassland Research Institute, Reading. For his research on the control of sheep parasites by appropriate grazing procedures and on nutritional requirements.
- 1972** P Stewart Tory Esq. Leading breeder and exporter, who has judged widely at home and overseas. He has done much for the sheep industry in negotiations with official bodies.
- 1973** Dr J M M Cunningham, BSc, PhD, FRSE. Director, Hill Farming Research Organisation. For outstanding services as lecturer and farms manager at Edinburgh School of Agriculture, influencing a wide circle of sheep farmers.

- 1974** Gwynne L Williams, BSc, MS. As a teacher in the science of animal production where his main contribution was in the field of recording and progeny testing, developing a ram performance testing station and wool production laboratory. Largely concentrated on Welsh Mountain sheep.
- 1975** Douglas McDougall, MA. For his extensive service to the sheep industry, throughout the UK and overseas, particularly through the Wellcome Foundation.
- 1976** Joe Raine, Farmer. For his work on practically every matter related to sheep and his involvement at a national level in NFU, MLC and EHF's. Renowned for his work with Bluefaced Leicesters and Mules.
- 1977** Harry Ridley, Farmer. For his very practical contribution of demonstrating profitable sheep production on the lowlands of southern England, and his untiring efforts in travelling throughout UK to talk of the methods he employs.
- 1978** Walter Elliot, Chairman, British Wool Marketing Board. For promotion of the industry at Government level. A Dumfries sheep farmer, he was heavily involved in the integration of farming and forestry.
- 1979** David Ker, Farmer. For his innovative efforts to increase production from hill farms. Involved with HFRO, BWMB & NSA.
- 1980** Dr Yuill Walker. For his work in stimulating the development of NSA and regenerating interest in the sheep industry.
- 1981** Joe Read. Head of MLC Sheep Improvement Service. For his work on designing, developing and operating commercial and pedigree recording schemes in the UK.
- 1982** Terry Boundy, MRCVS. A pioneer in bringing the Veterinary profession to the sheep industry. Established close working relationships between NSA and the Sheep Veterinary Society.
- 1983** George Hughes, Farmer. For his work in developing the Welsh Halfbred Sheep Breeders Association, NSA in Wales and the Wales & Border Region Ram Sale.
- 1984** Sidney Fawcett, CBE. Farmer. For his services to hill farming, to the sheep industry in general and the NFU.
- 1985** John Cameron, CBE. Farmer. For his services to Scottish agriculture, hill and upland farming as President of NFU Scotland and for his invaluable contribution as chairman of COPA sheep group in Europe.
- 1986** Jack Thompson, Head of Redesdale Experimental Husbandry Farm. For effectively demonstrating the practical and profitable application of modern husbandry thinking to hill farming. He proved to be an immense influence for change.
- 1987** Verney Pugh. For his services to the sheep industry in the Wales and Border region. He has been a prominent and active member of many agricultural organisations in the region.
- 1988** John Thorley. For his enthusiastic and dedicated services to the NSA and the sheep industry in general. He has been instrumental in developing the UK sheep industry and the respected status of the NSA.
- 1989** Ian Allinson, Farmer. For his practical contribution to conservation issues, better management of hill and marginal farms, and his efforts in the NSA Northern Region.
- 1990** Dr John Robinson, BAg, PhD, Head of Reproductive Physiology at the Rowett Research Institute, Aberdeen. For his work in the field of scientific research, and for his ability to effectively communicate the results of his efforts to farmers throughout the UK and overseas.

1991 Tommy Dun. Farmer. For his wide ranging services to the UK sheep industry and his efforts on behalf of the North Country Cheviot Sheep Society and Royal Highland Agricultural Society of Scotland.

1992 Jim Brown. For his services to many organisations on behalf of the sheep industry in Scotland and, as a long-standing representative on the NSA Council.

1993 John Gittins. In recognition of his unique efforts in promoting the sheep industry throughout the UK, but principally in Wales. He has been involved in developing a high standard of breeding and welfare and the improvement of ewe and lamb marketing. He has been directly associated with several organisations, many as their Chairman or President.

1994 James Johnston. For his outstanding contribution to the British sheep industry, and predominantly his efforts on behalf of the NSA for whom he helped raise their public and political profile.

1995 Dr Agnes Winter, BVSC, PhD, DSHP, MRCVS. For her work in the field of animal health and welfare as a practising veterinarian, a past President of the Sheep Veterinary Society and through her research work at Liverpool University.

1996 Dr Angus Russel. In recognition of his work on sheep nutrition, with particular reference to the pregnant ewe, and ultrasonic scanning, and for his pioneering work which brought ultrasonic scanning to the sheep industry.

1997 The award was presented jointly to two winners for the first time.

Michael Dawson. For his outstanding ability in communicating new science to the sheep industry. Initially with Maedi Visna, he was the first to identify the infection in British sheep in 1978, then with enzootic abortion, and lately for developing the use of genotyping for scrapie resistance in sheep.

Philip Bolam. For his work as an ambassador for agriculture generally and the sheep industry in particular. He brought great credit to the presidency of the Association and established effective links with many official bodies.

ATVs — the biggest thing in sheepfarming since the collie?

All terrain vehicles (ATVs) were invented by Honda in the 1970s for the North American public. Originally three wheeled machines, they were primarily aimed at the leisure market — for riding on sand dunes and snow. However when they were introduced into the UK in 1980, they were immediately seized upon by the farming community, which recognised their potential for a variety of jobs around the farm.

ATVs were able to carry out tasks that had previously been limited either to horses, larger 4x4 vehicles, such as Land Rovers and tractors or which had not been possible at all. They also enable access to wet land earlier in the season than is possible with tractors. As a result, ATVs have now become an essential tool on many farms, particularly those involved with livestock and with longer distances to cover.

ATVs owe their versatility to low ground pressure tyres, which are inflated to between 2psi and 5psi, giving them a soft footprint and enabling them to cross water-logged ground without sinking and delicate turf without damage. Alternatively they can ride on rough terrain without the rider/driver losing control, the suspension soaking up the bumps. Their popularity is based on a number of unique benefits — they provide mobility on unpredictable terrain and unlike other off-road vehicles, give a comfortable ride and are cheap to run. On the practical side, they can climb and with a variety of attachments haul, spray and spread. They can also help herd animals and reach outlying fields, wet lands or hills, making them ideal for sheep farmers. Increasingly tractors and expensive four wheel drive vehicles are being given up in favour of a more economical ATV as the most effective way of transporting one man with a small load around the farm. Although a relatively new innovation, few farms are now complete without one.

Annually over 300,000 ATVs are sold world-wide — most in North America. Only 5,000 are sold in mainland Europe, which contrasts markedly with the 6,000 sold in the UK, 9,000 in Australia and 6,000 in New Zealand, all of which are big sheep farming countries.

UK market leader, with about 50% of the market, is Honda. The company has continued to push technological advances in ATV production, for example introducing the first four wheeled ATV and the first four wheel drive ATV (the TRX 350 in 1988). Honda designs its engines specifically for ATVs and has introduced button controlled gear changing — on its TRX 450 ES model.

For further information on ATVs or details of your nearest stockist, call *A Honda ATV - and a collie - in action.* Honda freephone on 0800 378086.



National Association of Agricultural Contractors — Livestock Section (NAAC)

NAAC is an organisation which represents the professional interests of contractors in this country. It operates a central administration centre, offering advice and information to members and a link to potential customers in the farming community.

In 1986, four leading sheep contractors founded the British Alliance of Sheep Contractors. The NSA, under leadership of John Thorley, was initially involved in establishing the ground rules for the Alliance. In 1992, some members were also becoming involved with cattle and BASC joined forces with the National Association of Agricultural Contractors (which had been established in 1905), and formed the Livestock Section of NAAC.

Many farmers naturally associate contractors with the annual task of shearing. However, changes in farming policy over recent years have resulted in a drastic drop in the amount of skilled labour available on British farms. Consequently, many farms lack the expertise and equipment needed to manage and handle livestock, particularly for seasonal tasks, so the demand for skilled and professional contractors has increased.

Members of the Livestock Section of NAAC provide an extensive range of sheep contracting services including pregnancy scanning, lambing, shearing, mobile dipping and jetting/spraying, buying in breeding/store stock, fencing (both electric and standard), general shepherding and complete management contracts. The NAAC keeps a Register of its members and the services each provides and endeavours to ensure they all give a skilled and professional service. Stringent application procedures ensure that all members comply with specified standards.

The world of business is extremely complex and there are continuous changes in the law and recommended procedures. The Association is very much involved in many of the consultation processes which shape new legislation. Livestock contractors are often small businesses run by people working long hours, with no time to keep up with changes which may affect their business. NAAC aims to keep its members informed of the latest relevant developments.

As well as sharing support and advice, members of the Livestock Section enjoy tremendous co-operation between themselves. New members are informed of other contractors already in their area, which prevents excessive competition and enables them to share workloads where practicable. If a problem with equipment or labour arises, practical help can often be obtained through the national network of contractors within the membership.

The Livestock Section of NAAC has an active membership which continues to grow and provides an essential service to the sheep industry.

For further details or a list of contractors contact:

National Association of Agricultural Contractors — Livestock Section,
c/o Ulrik Middleboe, 8 High Street, Maldon, Essex CM9 5PJ.



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HONDA

Sire Referencing Schemes

1990 was the first year when groups of Suffolk and Charollais breeders formed the first UK Sire Reference schemes, in 1998 Signet will provide analysis for seventeen different breed groups, with nearly 350 flocks participating.

Management and environmental differences between flocks tend to mask any genetic differences there may be between animals in different flocks. Consequently, unless some mechanism exists whereby environmental influences can be accounted for, objective selection decisions can only be made on a within-flock basis, limiting the rate of genetic progress that can be made.

By using the performance of related animals in different flocks as a benchmark against which the other animals can be compared, the environmental differences between flocks can be disentangled from the genetic effect, making it possible to compare the breeding potential of animals in different flocks.

In order to create the genetic links between pedigree flocks needed for this to work, Sire Reference Schemes (SRSs) have been developed where a team of common rams (reference sires) are used across a range of flocks, usually by AI. The performance of their progeny provides the benchmark. By linking the flocks in this way all the animals in the scheme can be compared with each other and the size of the population from which replacements can be chosen is greatly enlarged.

Analysis of the data to allow such across-flock comparisons requires powerful computers and a sophisticated software package known as BLUP (Best Linear Unbiased Predictor). BLUP uses information on an animal and all its relatives in different flocks to work out how much of its performance is due to the effect of its genes and how much is because of the way it is managed and fed. The programme produces Estimated Breeding Values (EBVs) for a series of measured performance characteristics (eg litter size, lamb 8 week weight) which predict the superiority (or inferiority) of the genes the animal possesses for each of these traits.

Eg a lamb with an EBV of +2 for 21 week weight has the estimated genetic potential to be 2kg heavier at 21 weeks than a lamb with an EBV for this trait of 0.

Because the flocks in a SRS are genetically linked, the EBVs produced for each animal in the scheme can be directly compared. They can also be compared across time allowing genetic trends to be monitored. EBVs cannot be compared across breeds or across flocks that are not part of the same SRS.

Signet's Sheepbreeder genetic evaluation service also produces a Scheme Index for each animal in a SRS and for terminal sire breeds. This is a combination of EBVs for 20 week weight, muscle depth and fat depth (the last two are measured by ultrasonic scanner) and was developed to enable breeders to select for increased amounts of lean meat in the carcass without any associated rise in fat.

Operation of SRSs

Prior to the breeding season a team of reference sires is selected, usually from members' flocks, taking BLUP generated objective measures of performance, structural soundness and breed type into account. The best rams out of the population are chosen to be reference sires and their wide use results in genetic improvement in members' flocks.

The different breed schemes have differing structures, however one example is for the scheme to buy the rams, or have shares in them for the right to use their semen. In the larger schemes 2-3 rams from a team of 6 reference sires would normally be replaced annually.

Typically each flock then uses 2 or 3 reference sires, usually by AI, over about 30 of their ewes. The pedigree and performance of each animal in the scheme is carefully recorded and the infor-

mation used in an across-flock BLUP evaluation. The results of this evaluation are then used to select the next group of reference sires and individual flocks have a choice of flock replacements from all scheme members based on good objective information. This information is also available to members' customers.

The following list gives details of the present Schemes in the UK and are members of Sheepbreeder.

Berrichon Du Cher Breed Advancement Group

Contact: Mr J A & E Keith, 01723 863600; Richard Elliott, 01427 718306

Beulah Sire Reference Co Ltd

Contact: Gwyn Howells, 01970 625050

Blackface Sire Reference Group

Contact: Ann Welsh, 01899 830225; Peter Cappon, 01592 840517

Bluefaced Leicester Sire Reference Scheme

Contact: Prof Will Haresign, 01970 624471; Gwyn Howells, 01970 625050

Border Leicester Sire Reference Scheme

Contact: Colin Douglas, 0131 313 5037; Gavin Hill, 01899 308568

Caithness Premier Cheviot Breeders (North Country Cheviot)

Contact: Peter Cappon, 01592 840517

Centurion (Poll Dorset) Sire Reference Scheme Ltd

Contact: Richard Hole, 01963 23263; Robert Shields, 01392 434484

Charollais Sire Referencing Ltd

Contact: Jonathan Barber, 01953 601288; Maurice Jones, 01785 284452

Dorset Down Sire Reference Group

Contact: John Bennett, 01884 253495

Elan Valley and Cwmdauddwr Ram Group

Contact: Gwyn Howells, 01970 625050

Elite Texel Sires

Contact: Peter Johnson, 01943 830233; Maurice Jones, 01785 284452

Hampshire Down Sire Reference Group

Contact: John Bennett, 01884 253495

Ile De France Sire Reference Group

Contact: John Freeman, 01984 623399; John Bennett, 01884 253495

Lleyn Sheep Breeding Group

Contact: Bill Evans, 01886 821431; Maurice Jones, 01785 284452

Meatline Sire Reference Group

Contact: Henry Fell, 01652 618329; Richard Elliott, 01427 718306

Premier Texel Breeders

Contact: Mick Wright, 01873 810351; Peter Fairbank, 01993 830857

Suffolk Sire Reference Scheme Ltd

Contact: David Hiam, 01547 560246; Gwyn Howells, 01970 625050

Vendeen Breed Development Programme

Contact: Maurice Jones, 01785 284452

Signet are also involved in servicing two major Sheep Improvement strategies:

Welsh Sheep Strategy

Contact: Huw Thomas, 01970 625050; Gwyn Howells, 01970 625050

Highlands & Islands Sheep Strategy

Contact: Alistair Donaldson, 0131 4724111; Jim Stark, 01423 781390

Traditional Sheep Terms

Periods	Uncastrated Male	Castrated Male	Female	Remarks
Birth to weaning	Tup lamb, Ram lamb Pur lamb, Heeder	Hogg lamb Wether lamb	Ewe lamb Gimmer lamb	A sheep until weaning is a lamb
Weaning to shearing	Hogg (also used for the female) Hoggett (also used for the female) Haggerel, or Hoggerel Tup teg, Ram hogg, Tup hogg	Wether hogg Wedder hogg He teg	Gimmer hogg Ewe hogg Sheeder ewe Ewe teg	Hogget wool is wool of the first shearing
First to second shearing	Shearing, or Shearling, or Shear hogg Diamond ram Dinmont ram One-shear tup	Shearing wether Shear hogg Wether hogg Wedder hogg Four-toothed wether*	Shearing ewe Shearling gimmer Theave Double-toothed ewe* Double-toothed gimmer* Gimmer	'Ewe', in in lamb or with lamb; if not a barren gimmer; if not put to a ram is a 'yeld gimmer' (Scotland) A ewe which is barren or has ceased to give milk is a 'yeld ewe'; taken from the breeding flock she is a draft ewe, or a 'draft gimmer'.
Second to third shearing	Two-shear ram Two-shear tup	Six-toothed wether* Two-shear wether	Two-shear ewe	
Third to fourth shearing	Three-shear ram Three-shear tup	Eight-toothed wether* Three-shear wether	Three-shear ewe Winter ewe (Scotland)	
Afterwards	Aged tup or ram	Full-mouthed, full-marked or aged or wedder	Ewe	After fourth shearing 'aged' or 'three winter'

* On average, shearing takes place in May and June for most flocks except with mountain ewes, where the 'milk-clippings', ie, the clipping of the ewes which are still suckling lambs, is postponed until July. At the time of clipping sheep will vary in age according to the date of lambing. Thus Suffolks and earliest lambs of the Down breed may be 18 months old when first shorn and will have two incisor teeth well up, while Blackface shearing rams or gimmers will still carry lamb (milk) teeth. Similarly, a sheep of the early-lambing breeds may be two years and six months old at its second shearing, and have six incisor teeth well up, whereas one of the mountain breeds may only have four, and so on. There are, of course, all intermediate stages between these two extremes. The number of teeth given above are meant to be general averages; they cannot apply generally for all districts.

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D C R Neal-Smith Esq, Deputy Head of Agricultural Services, Walbrook Suite, St Swithin's House, 11-12 St Swithin's Lane, London EC4N 8AS
Tel: 0171-621 4002
Fax: 0171-621 4228

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J B Tatam Esq, Regional Agricultural Manager, Barclays Bank Plc, Agricultural Department, 77 South Road, Haywards Heath, West Sussex RH16 4LB
Tel: 01273 471711, Ext 5000. Fax: 01444 415979

CYMRU/WALES

J Glyn-Jones Esq, Regional Agricultural Manager, Barclays Bank Plc, Agricultural Services Department, PO Box 793, Barclays House, Ty Glas Avenue, Llanishen, Cardiff CF4 5FE
Tel: 01222 426414. Fax: 01222 426491

EAST ANGLIA

M R Redfearn Esq, Regional Agricultural Manager, Barclays Bank Plc, Agricultural Services Department, PO Box 90 Mortlock House, Histon, Cambridge CB4 4ZX
Tel: 01223 545533. Fax: 01223 545556

WEST MIDLANDS/NORTH WEST

J A Trickett Esq, Regional Agricultural Manager, Barclays Bank Plc, Agricultural Services Department, PO Box 430, 44-46 Castle Street, Shrewsbury SY1 2WP
Tel: 01743 843105. Fax: 01743 843104

LONDON NORTH/LUTON/THAMES/SOLENT

R L Waters Esq, Regional Agricultural Manager, Barclays Bank Plc, Agricultural Services Department, 33 Horse Fair, Banbury, Oxon OX16 8EP
Tel: 01295 453685. Fax: 01295 453686

YORKSHIRE & HUMBERSIDE/EAST MIDLANDS

D J Bates Esq, Regional Agricultural Manager, Barclays Bank Plc, Agricultural Services Department, Barclays Business Centre, Ten Pound Walk, Doncaster DN4 5HJ
Tel: 01302 505543. Fax: 01302 505542

NORTHERN/SCOTLAND

D P Oliver Esq, Regional Agricultural Manager, Barclays Bank Plc, PO Box 1LG, Barclays House, 71 Grey Street, Newcastle upon Tyne NE99 1LG
Tel: 0191-200 2085. Fax: 0191-200 3335

SOUTH WEST

B S Hammond Esq, Regional Agricultural Manager, Barclays Bank Plc, Agricultural Services Department, 2nd Floor, 6 Bedford Street, Exeter EX1 1LL
Tel: 01392 490406. Fax: 01392 421802

DEPUTY HEAD FOR WEST AND WALES

D K Homan Esq, Deputy Head of Agricultural Services, Barclays Bank Plc, Agricultural Services Department, Park House, Newbrick Road, Stoke Gifford, Bristol BS34 8YU
Tel: 0117-948 3355. Fax: 0117-948 3285

NSA Sheep Farmers' Charter

❑ Yesterday

Sheep was man's first farmed animal. Early farmers kept sheep for their meat, skins, wool and milk.

Over the years sheep have provided food and clothing in a most natural way, bringing in the process fertility to the soil to allow other crops to grow in rotation.

Sheep are capable of utilising all types of herbage on a wide variety of terrain from good quality fertile lowland to the highest and most exposed infertile mountain.

❑ Today

60% of the UK sheep industry takes place in remote mountain areas, the rest on lower farms. It is in the hands of over 80,000 producers and their families — sheep farming is generally a small family business. The expertise practiced has been handed down over generations, but is now augmented by technical improvements as required by today's discerning customer.

Modern Sheep Farmers Aim

1. To maintain the established natural practice of sheep farming, working with the environment providing benefits for soil structure, the eco-system and wildlife.
2. To farm their sheep according to the most appropriate standards of health, nutrition, welfare and breeding.
3. To ensure that their flocks are protected from disease and that all sheep sold are of a given health standard to enable purchasers to buy with confidence.
4. To market their sheep in a traditional and open way insisting on the highest standards being practiced by marketing companies, hauliers and all others involved in meat production.
5. To carry on sheep farming within present structures while allowing farmers, their families and staff to contribute to the culture and prosperity of remote rural areas.
6. To manage a viable business to comply with best ethical practice, and to ensure that all sheep sold meet the high standards required for consumer safety and quality providing positive encouragement to customer confidence.

A Glossary of Sheep Terms

The Glossary has been kindly supplied by members and others but is not intended to be a comprehensive list of terms.

- Apern.** Apron.
To Back, To Cast. To get on its back and be unable to rise.
To Belt, To Dag. To clean out with shears.
Belt. Sheep scab.
Bields. Shelters.
Billy. Machine used in carding wool.
Bing. Feed passage.
Blackloss. Unaccountable losses.
Blast. Blown (ie bloat or hoven).
Bleb. Tapeworm cyst as in Gid.
Blindquarter. Nonfunctional udder.
Bolting. Bundle of straw.
Boost. Instrument for marking sheep (usually with hot tar), often bearing the owner's initials.
Bound Stock. Sheep acclimatised to a hirsell.
Bratting. Put a jacket on sheep, usually hoggs, to protect them from cold in winter.
Breeding-in-and-in. In-breeding.
Brokenmouthed. Some teeth missing.
Brocket. Mottled.
Buchts. Gathering pens (Border District).
Buisted. Marked (eg with tar) after shearing.
Bursenbelly. Dropped belly.
Cade. Handreared lamb.
Caroirich Big ("Little Sheep"). Four-horned sheep indigenous to the Highlands.
Cast Ewes. Old breeding ewes which are sold off hill farms to lower ground farmers who take one more crop of lambs off them.
Chines. Part of the sheep's body.
Clarts. Dung attached to fleece, clags, daggings.
Clatting. Removing wool from inside of thighs and around udder prior to lambing, also clag.
Claughty Soil. Sticky soil.
Claveau. Sheep pox.
Clees. Claws.
Cling. Diarrhoea.
Co-fer. Food-chest.
Collop. Stock unit for letting grazing – equal to three yearling cattle or one yearling plus one two-year-old bullock or four sheep.
Cotting. Used in two ways, either clothing sheep to give winter protection or felting of the fleece; folding.
Couples. Ewes and lambs.
Crones. Old ewes.
Crutch. Twist.
Crues. Sheep folds.
Cuckoo Lambs. Lambs born after middle of April (late-born lambs).
Dagging. Removing fleece from the udder or inside thighs, prior to lambing.
Dal-o'-Goyt. Early name for Derbyshire Gritstone.
Dartars. A disease of lambs.
Diamond, Dinmont Ram, Dinmont Tup. Shearling ram.
Dipper. Dipbath.
Dipstick. Stick for measuring bath contents.
Dishley, Dartmore, Notts, Heath, Dun-faced. Original breeds of sheep (Dishley has become today's Leicester).
To Draw Lambs. To assist in delivery.
To Draw Ewes. To select for making up groups.
To Dock. To cut the tail or clean out the rear parts.
Double, Couples. Twins.
Drove, Droving, Drover. Flock, driving, driver.
Dunt. Gid.
To Ean, To Yean. To give birth to a lamb.
Eild or Yeld Ewes. Barren ewes.
Euk, Suint, Yokr, Yolk. Yolk (yellow soap material secreted by the skin into the fleece).
Faggs. Ticks.
Fanks. Gathering pens (Mid-west Scotland).
Fank. Sheep pens.
Farwelled. When a sheep is stuck on its back.
Flyblown. Fleece laden with maggot-fly eggs.
Foresters. Type of black-faced mountain sheep found in Wales and West.
Fors. Hairs mixed with wool in the fleece.
Forsing. Dressing "fors" out of wool.
Fountain. Iron pot fitted with brass tape for supplying hot water.
Gaffer, Guv'ner, Maister. Master.
Gentles. Maggots.
Gig, Goggles, Turn, Turnstick Dunt, Thorterill, Pendro. All terms for Gid.
Gigots, Braxy Hams. Hams from sheep infected by braxy.
Gimmer. A female sheep from weaning to shearing.
Gin. Trap.
Glat. Gap in hedge.

Glattling. Repairing gaps.
Gleamy and Dagley. Maggoty weather.
Goggles. Gid.
Gostrel. Small ciderbarrel for daily supply.
Grimeface, Mule. Greyface.
Haggerill Heeder. Ram lamb.
Half Long. Cheviot ram x Blackface ewe.
Hammel. Some sort of small shed, Ram lamb.
Heft. Part or section of Hirsle (about five Hefts in each Hirsle).
Higham striking. Another name for "Putrid" fever.
Hindering weather. Damp.
Hirsle. Piece of ground and flock looked after generally by one shepherd.
Hog, Hogg, Hoggerel, Hogget. A male or female sheep between being weaned and shorn for the first time.
Hoggerel, Tup-Hog. Hogget.
Hovel. Stock building.
Inbye. Land fenced between fields and open hill.
Intake. Improved pasture taken in and fenced from hill.
Jobbers. Dealers.
Kades, Kaid, Keds.
Kemps. Coarse hairs.
Kindly Bred. Term used of superior Shetland Island sheep.
Lachan. Light brown colour of sheep in the Highlands.
Laid Sheep. Sheep which have been salvaged.
Laid Wool. Wool discoloured by the use of salves containing tar.
Lamb Bed, Wither, Wether. Terms for uterus.
Laughton, Loghtan. Term used to describe colour of Isle of Man sheep (brown colour).
Leaf. A disease of lambs.
Linton. Alternative name for Heath sheep.
Lugmark. Ear mark.
Lunky. A hole in a wall large enough to admit one sheep at a time. (See Smout).
Maid. A ewe teg that has been to the ram but has proved barren.
Marden layers. Young leys.
Mardy. Stupid, off-colour, sickly.
Milk-clipping. Shearing the milking ewes.
To Mind. To remember.
Mule. Cross Bred Sheep, Sired by Bluefaced Leicester.
Murret, Murrett. Moor red colour of fleece.
Mugg, Mugs. Breed of Northumberland sheep, early name for Wensleydales.
Parrot-Mouthed. Malformation of the mouth.
Paterish. Gid.

Pinning. Scouring.
Pirls. Small knots of wool as in Wensleydale.
Pug. Teg.
Pinds. Sheep folds.
Raett. Fold for sheep.
Ray. Sheep scab.
Rounds. Circular walls built to protect sheep from snow drifts.
Rubbers. Sheep scab.
Salving, Smearing. Treating sheep with a mixture usually tar and butter, to protect against cold (or parasites).
Set-to. A "set-to" is an orphan lamb given to a foster mother.
Shab. Sheep scab.
Shearling. A young sheep between its first and second shearing.
Sheeder. Female lamb.
Shots. Culls or small lambs.
Shuttle-Cobbed. Malformation of the mouth.
Smout. Hole in a wall large enough to admit one sheep at a time (see Lunky).
South Dum. South Devon sheep.
Spiv Ewe. A ewe in low condition that will not fatten.
Staggers. Gid.
Stell. Circular stone wall, roofless shelter.
Stells. Circular stone wall, roofless shelter (Northumberland).
Stretch or hurdles. Five or six wattle hurdles with stakes and shackles.
Sturdy. Gid.
Swaddles. Swaledale sheep.
Tag. Sheep scab.
Thrunter. Three year old ewe.
Thorter III. Gid.
Tup. Ram.
Turnsick. Gid.
Twinter. Two year old ewe.
Under-Hung. Malformation of the mouth.
Vanquish, Vinquist. Pining or pine disease.
Wether, Wedder. A castrated adult male sheep.
Wicks. Maggots.
Wrees. Gathering pens (SW Scotland).
Yel or Yale Ewe. South Scotland term for barren ewe. (See also Eild or Yeld ewe).

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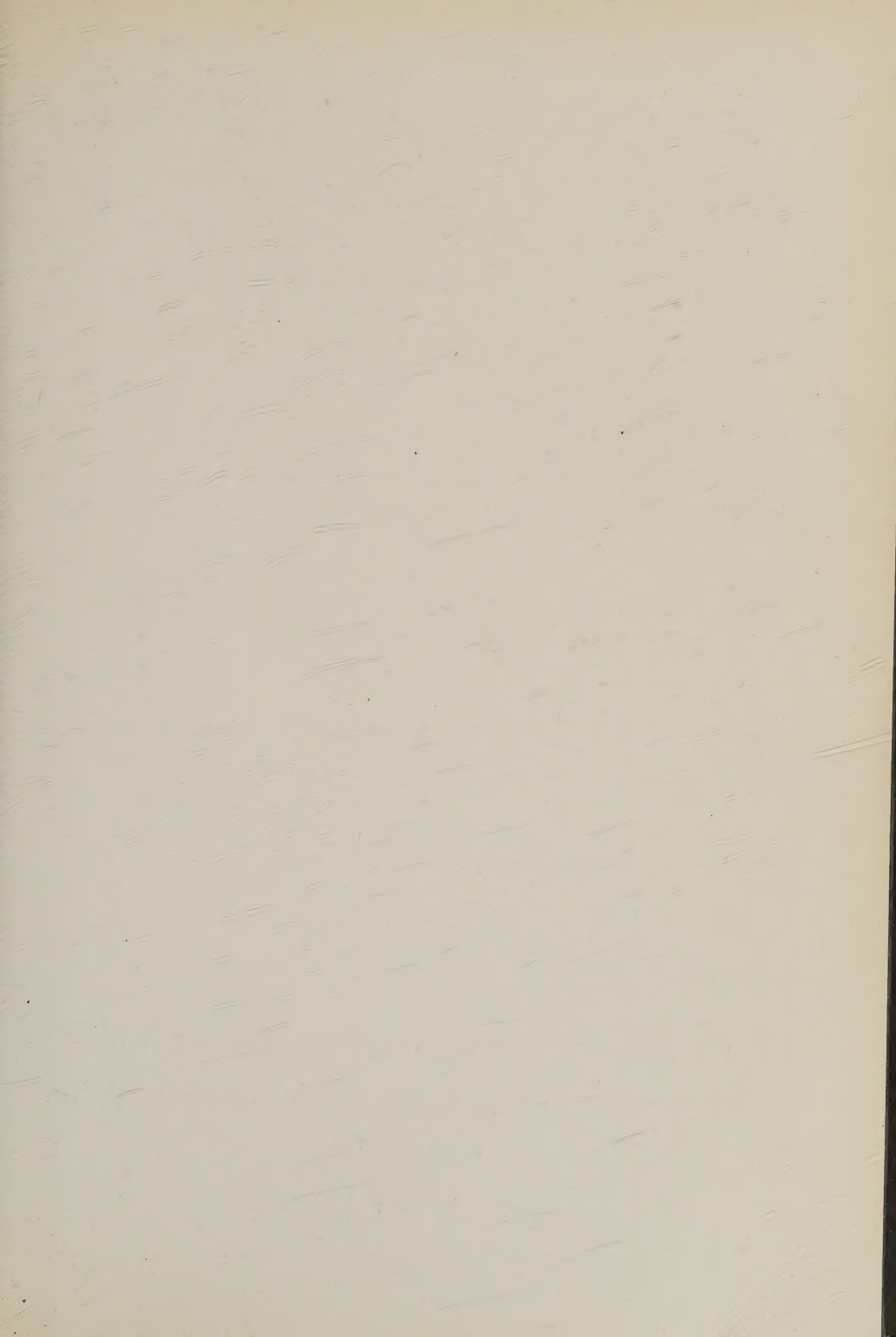
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